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OGDENSBURG ELEVATOR.

Probably the most popular route for distributing grain to the New England states from Chicago and the Northwest is via the Ogdensburg Terminal Company's line of boats to Ogdensburg, N. Y., thence by the Central Vermont to Rouse's Point, St. Albans, and thence down to way-stations in Vermont and to Boston.

To supply this rapidly-growing trade the Central Vermont Railway Company, in connection with the Ogdensburg Terminal Company, have built a fleet of nine steel steamers, having a carrying capacity of about 80,000 bushels to each ship, and have just completed a large terminal elevator at Ogdensburg, which we illustrate herewith.

The elevator is built on what is known as the "low storage" plan—that is, with the greater portion of the bins resting immediately on the foundation, and having a framed working story, under the bin ends covered by the cupola, for the operating machinery. Grain is received into the house from the company's ships by one of the largest marine legs on the lakes, the capacity being upward of 15,000 bushels per hour. It weighs over 15 tons. The leg has a total length of 90 feet, and a vertical movement of 63 feet from the lowest to highest position. The hoisting machine, by which the leg is handled, was specially designed for this purpose, and enables the operator, standing by the hatch of the vessel if he chooses, to place the ponderous machine in any position required by simply pulling a cord.

The receiving lofters are fitted with buckets 7x7x30 inches long, and correspond in capacity to the marine leg. The belt conveyors used are all 36 inches wide, and are fitted with the "Macdonald" Patent Tripping Machine. A new feature in the belt conveyor fittings is the pivoted

roller bearing stands, which are secured to the floor, doing away with all timber or frame construction for supporting the belts.

The power is supplied by a battery of three boilers and a 250-horse power "Buckeye" Automatic Engine, and transmitted to various parts of the machinery by nearly 10,000 feet of rawhide rope—no belting being used for

the latter to the new house, but the fire which destroyed the old elevator, on the morning of the 8th of September, also destroyed the usefulness of the belt for the time being.

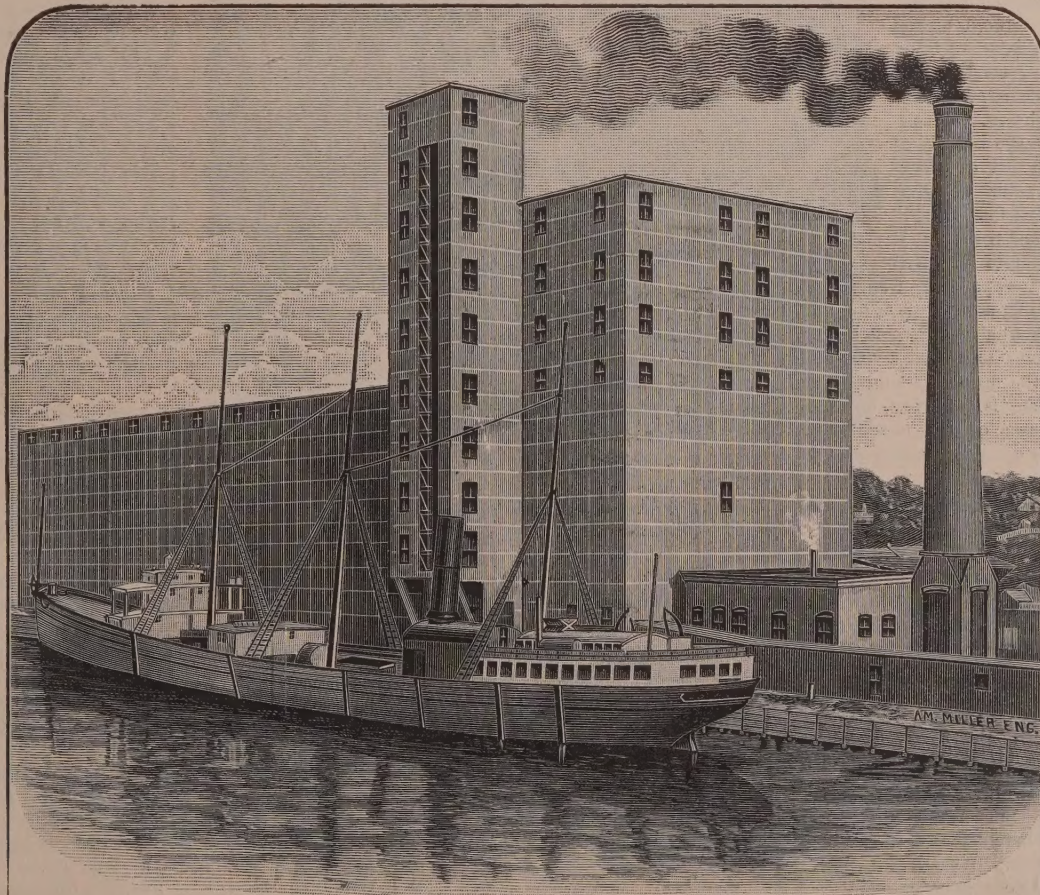
The entire contract for this work was handled by the METCALF-MACDONALD COMPANY of 195 S. Canal St., Chicago, and the machinery, outside of the power plant, was supplied by the Webster Manufacturing Company, Chicago.

Gov. Smith of St. Albans, Vt., is president of the Terminal Company; E. C. Smith, vice-president; F. W. Baldwin, general manager, and J. Westbrook, superintendent.

THE MANITOBA HAY CROP.

The wet weather this season has been very destructive to hay. One correspondent from a western point writes that fully half of the hay in his district has been destroyed. A wet harvest is such a rare occurrence in Manitoba and the tributary country to the West, that no forethought is taken for such a contingency. This season has proved an exception to the almost invariable rule, and a very remarkable exception at that. Counting upon dry weather, some are not very particular about the way they put up their hay, and no doubt a good deal has been lost through having been left in small stacks in the field, instead of being care-

fully stacked. In view of the shortage of hay last year, a great many farmers would no doubt have put up hay enough this year to have lasted them for two winters, in order to be prepared for a possible shortage next year. The very unfavorable weather, however, will interfere with any such intentions. It is now so late in the season that fall plowing will have to be pushed, and there will be little time to spare for putting up more hay than is required for present wants.—Winnipeg Commercial.



NEW ELEVATOR AT OGDENSBURG, N. Y.

transmission purposes. The machinery throughout was designed to meet the exacting requirements of the steamboat service. It is sure-footed, and large quantities of grain can be handled quickly, conveniently and inexpensively.

A belt conveyor 36 inches wide and 600 feet long was placed between the new elevator and the old house, belonging to the Central Vermont Railroad Company, and was intended to be used in transferring the grain from

VISIBLE AND INVISIBLE.

One elevator at Minneapolis, containing 949,000 bushels of wheat, has been taken out of the "visible supply," and put on the private list. It is claimed that others will follow, so as to evade the Minnesota Elevator Law. One elevator has also been declared "irregular at Milwaukee." The visible supply statement is fast losing its value as showing the supply of grain on hand, owing to the large supplies in private houses.—*Chicago Bulletin*.

It has been suggested that the decrease of the visible supply of wheat, which has been steadily going on this season all through the winter wheat crop movement, might be due to the diversion of the grain into private warehouses, which it is said has been on an unusually large scale this season. It thus disappears from "sight," theoretically, but is still actually a part of the stock. This may be true partially; but *Bradstreet's*, which takes these private stocks into its computation, still figures a steady decrease.—*Daily Business*.

We very much regret to again call attention to the report of the visible supply of grain as sent out, but it should be said by somebody, in the interest of every dealer, that it is misleading, especially in wheat. Private elevators have absorbed wheat which is not reckoned in the statement. *Bradstreet's* seems to have no difficulty in approximating these private grain stocks, and we sincerely believe it can as easily be accomplished by the compilers of the table we all want to rely upon. A Chicago paper makes the point that the stock so returned would be unofficial. So are all the stocks in New York, Philadelphia, Baltimore, Toledo, Detroit, et al. That is not a good objection.—*Toledo Market Report*.

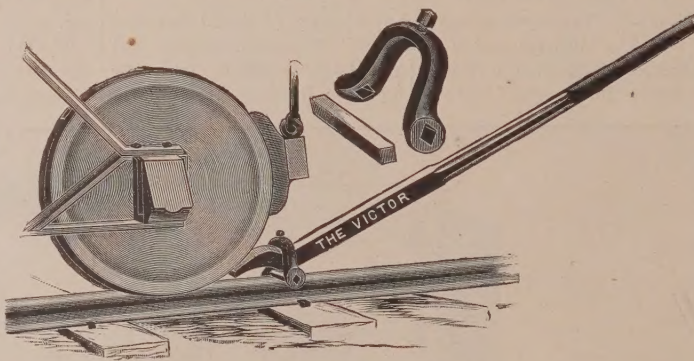
The desirability of having the weekly official grain supply statements embrace stocks in private warehouses, or such as are not classed as regular, at prominent points of accumulation, has been urged at different times. But men whose operations are largely speculative, with interests not favoring the fullest general knowledge of matters which they secure through special efforts, are opposed to such widening of information in the interest of the general public. An instance illustrating the desirability of what we have urged has been shown. An elevator at Minneapolis with 900,000 bushels of wheat has been retired from the list of "regular" warehouses, and this quantity of wheat accordingly retired from the "visible supply," while in fact it has not changed position. It will be said by these objectors to advanced methods and of public enlightenment that the trade know the facts in this instance, and therefore there is no evil resulting from adherence to the usual method. Some in the trade know the facts and some don't—and if they do, this knowledge cannot change the figures for subsequent comparison. The present method is imperfect, and not up to the times. The intelligence of men in the trade will sooner or later imperatively demand the change suggested.—*Cincinnati Price Current*.

As noted in a number of commercial and other newspapers, "the stock of wheat now stored in private warehouses has become so large that the (official) visible supply statement, as a basis of calculation, is losing much of its value." This has been true at intervals for two or three years past, but the press and public are only now beginning to realize it. For instance, recently out of the total of 24,446,520 bushels of available wheat reported to this journal, fully 6,750,000 bushels were not in what are referred to as official warehouses. Hence no notice is taken of it by official reporters. And the possible switching of more or less of this non-official wheat from non-official to official warehouses oftentimes explains heavy changes in the visible supply statement which have been interpreted by the trade quite differently, and have been made unnecessarily to affect prices. In brief, if a visible supply statement, or an available supply statement, is not made to include approximately all of the wheat hanging over the market at principal points of accumulation, such report is worse than worthless—it is likely to be, and often is, misleading.—*Bradstreet's*.

The weekly visible supply statement is, or was until recently, among the most useful of the statistical compilations made by commercial organizations. Efforts have been put forth from time to time to add to its completeness, and consequently increase its value, and until a very recent period it served its purpose very acceptably. But

late changes in the manner of storage has changed conditions some, and the methods of compiling the figures need to be revised and adapted to the existing circumstances, if the compilation is to retain its hitherto valuable features. We refer to the unusually large accumulations of grain in private warehouses, especially in Chicago and at Minneapolis. Practically these accumulations add just so much to the actual "stocks," but by a "figment of the imagination" are not "visible" to the compiler of the weekly statement, though it is necessary for him to shut his eyes in order that he shall not see them. It has been claimed that "figures cannot lie," but this incident illustrates that they may be made to deceive or mislead. This is written with no intention of harsh criticism, but rather for the purpose of suggestion. The compilation is being done on the old lines, and in accord with old methods. But conditions have changed, and the methods should be changed to meet these conditions. Stocks in private warehouses are not so readily obtainable as in public elevators; some it may be impossible to get; others, and perhaps the most of them, will readily furnish the desired information. It is not worth while to make the effort.—*Chicago Business*.

With great respect for the compilers of the visible supply tables, we desire to ask once more why the wheat in these private elevators at Minneapolis, which is so easily ascertainable to the trade at that center, cannot be included in the weekly table. There are three elevators in Minneapolis with a capacity of 1,000,000 bushels which were regular last year, and not regular this year, the stocks in irregular elevators will cut more of a figure than last year. The private storage is swelled there to 5,800,000 bushels. The statement of stocks is altogether inadequate without including grain in private elevators. A



THE VICTOR PINCH BAR.

few years ago the statistician who invented and compiled the visible supply table refused for a year to include Minneapolis stocks at all. The trade wants an approximation to the actual stocks.—*Toledo Produce Exchange Report*.

"There has been more or less talk lately on 'Change in reference to the unsatisfactory character of the visible supply, as it takes no cognizance of the stocks in private elevators through the country, and therefore does not present the total available quantity of grain, as they claim it is supposed to do. While there are some good reasons why these stocks should be noticed, there is the serious objection that such figures must, of necessity, be unofficial. There is no law that can be used to force a private elevator man to say whether or not he has any grain in his house, nor can he be made responsible for any misrepresentation. To be sure there might be some sort of an estimate of the quantities in these private houses, but those who remember the protests that flooded the Board when an attempt was made to include in the visible the grain in transit know that no such figures would be satisfactory. The visible supply does not purport to give the actual quantity of wheat in the United States, but it does give the quantity that has been put into official warehouses and for which receipts have been issued and placed on the market to be taken care of by the trade. Until there can be some arrangements that shall insure the accuracy of the returns made by the private elevator men, the stocks, though admittedly desirable, were better let alone."—*Chicago Tribune*.

Among the unique exhibition buildings in the West this fall is a hay palace at Momence, Ill. It was opened to the public on Oct. 1. The primary object of the exposition is to make a display of the varied products and resources of Eastern Illinois and Western Indiana, in the hope of attracting investment.

GREEN KERNELS OF WHEAT.

Recent advices from Minneapolis state that ever since the new crop of wheat began to come in, dealers have claimed that the state inspectors were putting too high grades on the lower qualities of wheat, particularly that from North Dakota, which contained green kernels. The millers have absolutely refused to buy it, and the elevator men have shipped it to outside points or stored it. New York dealers have made frequent complaints. They said they could not sell it to the foreign trade, and that there was no demand for it. A prominent elevator man of Minneapolis went to New York to see about it. He did what he could to allay the fears of the dealers there by telling them that the color would change after it had been in store for a time. The trouble is, however, that when the change comes in green wheat, it will be for the worse. The fact is that very little of the wheat so far received from North Dakota is of even fair quality. Nor is this all. The best, even up to No. 1 hard, contains green kernels, some of it in great quantities, which unfits it for milling purposes. So much has been said upon the subject that it is understood that the state inspector submitted samples of the wheat to Prof. Harper of the State Experimental Farm for analysis as to its worth for flour. This analysis has been made, and while it has not been made public, it is learned that it fully sustains the position taken by the millers. Compared with No. 1 hard as 100, some No. 2 Northern is said to have gone as low as 85.

THE VICTOR PINCH BAR.

The Victor Pinch Bar or Car Mover, which is manufactured by THORNBURGH & GLESSNER, 18-22 N. Clinton street, Chicago, has not been on the market very long, but it is rapidly gaining friends among millers, grain dealers and other shippers.

As shown in the accompanying cut, a half-inch piece of steel rests on the rail and is held there by a clevis-shaped piece. The friction is next to nothing, and the bar touches the wheel so far up from the rail that one does not have to lift the car to move it. The bar is 5 feet long, weighs 18 pounds, and the fulcrums are $3\frac{1}{2} \times \frac{1}{2}$ inches square.

It is claimed that the Victor is the best device ever used for moving cars by hand, for the following reasons: It is the most powerful. It stays on the rail, and does not slip on oily or frosty rails. It is made of the best steel.

It will work under all brakes. Its fulcrum, which can be taken out by loosening the set screw, has four corners, and its position can be changed on the bar in a moment. This feature alone makes it superior to all others. It has no joints, no "lost motion." But the best way to be convinced of the good qualities of this bar is to send for one on trial for one week, and you can return it if not satisfactory. Any further information can be secured by addressing the makers.

BLEACHED MANITOBA WHEAT.

From early in August until past the middle of September the weather was so wet that it was almost impossible to stack the grain. Farmers went on cutting between the showers, and the crops were all placed in shock, but there it had to stay. Before the sheaves were sufficiently dried to be fit for stacking, the rain would set in again. Harvest dragged along very slowly until past the middle of September, when fine weather set in and allowed farmers to complete their harvest.

The result of the repeated soakings which the grain received while in shock has been to materially reduce the average quality. Fine, bright samples will be rare this year, while the bulk of the crop will be more or less bleached.—*Winnipeg Commercial*.

SOME say that a man who would "beat an egg" would be so cruel as to "whip cream" "thrash wheat" or even "lick a postage stamp."

THE acreage of winter wheat in Iowa promises to be larger this fall than for many years. Nearly every farmer is said to be sowing a little.

Webster defines a "jag" as a "small load of corn." What's the matter with a small load of rye or a big load of barley?—*Produce Exchange Reporter*.

GRAIN HANDLING IN THE NORTH-WEST.

The New York *Railroad Gazette* says: "No question of freight tonnage is of more importance to the railroads of the Northwest than this one of handling wheat. This is no less due to the enormous quantities of grain hauled every year in the states of Minnesota, North Dakota and South Dakota, amounting in average years to 125,000 cars, or 75,000,000 bushels, than to the fact that over 90 per cent. of this class of freight is handled through the country elevators. The country elevator system grew up with the country. Along and upon the right of way of the railroads privileged parties were permitted to erect grain houses and elevators at the different stations, which have enjoyed the facilities of side-tracks and other advantages not given to the general public. Parties could erect these houses only upon such terms and conditions as the companies saw fit to impose. In course of time the application for such sites became greater than the companies were willing to grant, and led to many refusals. The parties refused claimed that the railroad companies were discriminating unjustly, and practically saying who should and who should not buy and ship grain over their respective lines.

"This led to much friction between the common carriers and private shippers of grain, so called. Public feeling was stirred up to such a point that in Minnesota in 1885 a 'granger legislature' was elected and passed a law compelling every railroad company in the state to permit 'any person, company, or corporation, for an annual rental of \$1, to construct, maintain and operate an elevator or warehouse at any of its regular way stations, etc. This law, on a test case in the Supreme Court of the state, was promptly decided unconstitutional, and there has been no subsequent enactment relating to it.

"It is not probable that the threats of the North Dakota elevators to refuse storage of grain will be carried out, as the railroads are opposed to such action. But there is good reason for believing that the Legislature of Minnesota, which meets next January, will pass a law for the 'free shipment of grain,' which will insure to the individual shipper the same rights and privileges which are now enjoyed by the elevator companies. The form of the law will probably be such as to provide that any party wishing to build a structure upon his own land adjoining the railroad right of way shall be permitted to do so, and may apply to the State Railroad Commission for an order requiring the railroad company to build sidetracks and furnish shipping facilities upon such terms and conditions as may be reasonable and just.

"The practical effect of such a law, or of the refusal of the grain elevator companies to do a public business, would be to increase the demands on the railroad companies for cars to a point far beyond their power to furnish. Already the Great Northern and Northern Pacific companies receive more calls for cars during the months of September, October, November and December of each year than they can respond to, and each year the problem of handling the grain crop of the Northwest becomes a more serious one.

"No legislation can compel the railroad companies to make heavy and expensive additions in their rolling stock to meet a demand which is practically confined to four months in a year, and while the companies manifest a disposition to do all in their power to supply cars as required, they will not voluntarily make up their equipment on the basis of four months' heavy traffic.

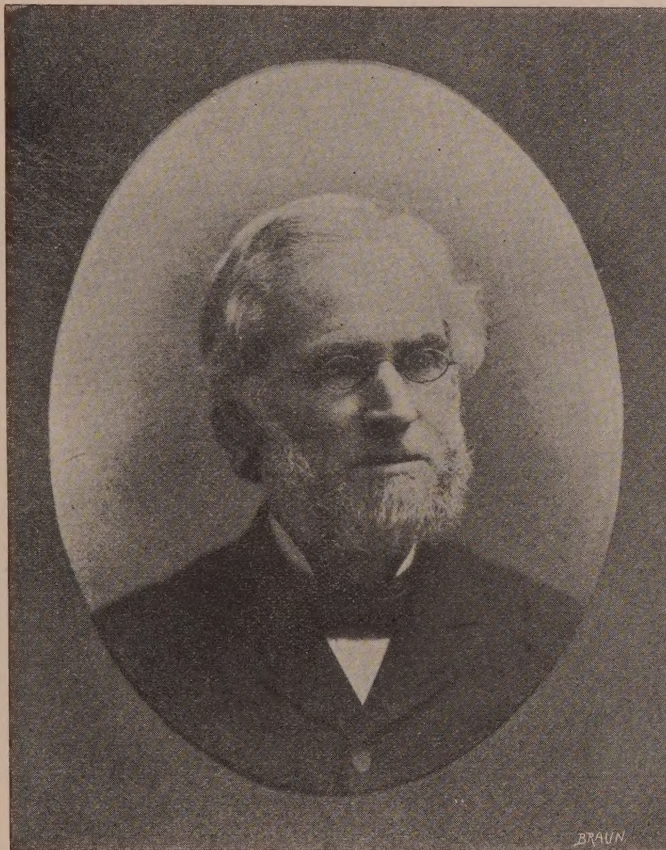
"The roads handling the grain brought to the three great terminal markets—Minneapolis, Duluth and St. Paul—are really but six in number, the other roads running into these cities carrying such small quantities of grain as not to have any weight in the year's summary. The following table, compiled from the official statistics of the chief grain inspector of Minnesota, will show the handling of last year's crop:

Name of road.	Percentage of grain to total crop handled.	Percentage of tonnage.
Great Northern.....	45	18.75
Northern Pacific.....	20	18.60
Chicago, Milwaukee & St. Paul.....	18	18.40
Chl., St. P'l, Minneap. & Omaha.....	10	14.94
Minneapolis & St. Louis.....	6	19.74
Minne., St. P'l & Sault Ste. Marie.....	1	11.57

"From the official report of the railroad companies the following figures showing the total mileage of each road, together with the number of box-cars suitable for carrying grain, are taken. No grain is carried in sacks or bags, all being loaded in bulk:

Name of road.	Mileage operated.	Cars owned.
Great Northern.....	3,454.52	5,839
Northern Pacific.....	4,066.81	4,918
Chicago, Milwaukee & St. Paul.....	5,678.15	14,397
Chicago, St. Paul, Minneapolis & Omaha.....	1,695.35	4,982
Minneapolis & St. Louis.....	444.70	200
Minneapolis, St. Paul & Sault Ste. Marie.....	887.88	2,664

"The short season for handling the crop is one of the important factors to be taken into consideration. The crop year begins on Sept. 1. By that date all of the old crop is out of the elevators, and though a little of the new crop comes in during the month of August, it is too small a quantity to be taken into consideration. Let us examine for a moment the handling of the 1888 crop, which is fairly typical. In September, 1888, the railroads of Minnesota moved 8,748 cars of grain; in October there were handled 12,804 cars, and this large movement kept up through November, only 300 cars less being



THE LATE ROBERT DUNBAR.

handled in that month. In December there was a return to about the amount carried in September, 8,118 cars being hauled. January, 1889, witnessed the sudden falling off in the movement, the rush of grain being over, so that only 2,882 cars were carried, and from that time until May the movement increased at the rate of about 1,000 cars per month, due to the higher market. In May the movement fell back to 4,548 cars, and did not vary 1,000 cars from that figure in any month until it went flying up to over 9,000 cars, consequent upon the harvesting of the 1889 crop. In brief, 42,000 cars of wheat are handled in the months of September, October, November and December, and 32,000 cars in the remaining eight months of the crop year.

"It will be evident from an examination of the figures that handling the Northwestern wheat crop is no easy matter for the railroads, and presents difficulties with which it is hard to cope. It is estimated that the wheat crop of the Northwest will this year far exceed anything that the roads have had to deal with for several years. How will the problem of supplying cars be met? This is a question that troubles general managers every year at this time, and particularly this year, when the new phase put on the question by the elevator owners and the prospect of embarrassing railroad legislation complicate the matter. It is likely that a solution of the question will be reached in the nature of a compromise. To require

the railroads to purchase extra equipment for handling a four-months' business would be utterly unreasonable. There is no question but that the most rapid and economic method of handling the grain crop is through the country elevators; but the public must be protected, and it may be that to accomplish this all elevators in the state will be made 'public elevators' under the control and supervision of the Grain and Warehouse Law. The State Railroad Commission of Minnesota favors such a law, and it is perhaps not too much to hope that a 'granger legislature' may in time come to see the practical wisdom of such a plan, and, meeting the railroad companies half way, pass a law that shall work for the good of both interests."

DEATH OF ROBERT DUNBAR.

Mr. Robert Dunbar, an old and highly respected citizen of Buffalo, N. Y., died Sept. 18 at his home in that city in the seventy-eighth year of his age. He had been failing for about six months. He was born at Carnbee, Fifeshire, Scotland, Dec. 13, 1812, and came to America when a boy of 12 with his parents. The family settled in Canada, and Robert was educated to the profession of his father, that of a mechanical engineer. Mr. Dunbar came to Buffalo in 1834, and had resided there ever since. His first business was to build the old mills at Black Rock, and he also formed a partnership with the late C. W. Evans in the elevating and warehouse business.

This firm was dissolved, and Mr. Dunbar became one of the originators of the Eagle Iron Works, the concern being known as the Buffalo Eagle Iron Works Company in which he was associated with Messrs. S. S. Jewett, F. H. Root, O. E. and J. E. Follett. This company was dissolved, and Mr. Dunbar then entered into partnership with the late S. W. Howell, in the same business and at the same stand, the firm being Dunbar & Howell. When Mr. Howell retired, Mr. Dunbar bought out the entire business, which he carried on to the time of his death, the firm of late years being R. Dunbar & Son.

Robert Dunbar was the father of the great grain elevator system, and the present improvements of elevators are his inventions. In fact, as an elevator expert he was known all over the world. He was the architect and designer of nearly all the elevators in Buffalo, and was the first man who ever built an elevator leg that would move up and down by machinery. The value of his inventions to the elevator interests cannot be estimated.

He was associated with the late Joseph Dart and others early in the forties in the construction of the first grain elevators in Buffalo, for which Mr. Dunbar designed the machinery. Among the elevators designed and built by him were the old Dart, the Evans, the Watson, the Merchants', the Reed,

the Wilkeson, the Bennett, the Wells, the Richmond, and others. He also built a number of elevators in association with Bradford Clark.

He became so noted as an expert in elevator design and construction that people came here to consult him on the subject from England, Russia and Germany, and he prepared plans for elevators in Liverpool, Hull and besides New York and other places in this country Odessa, and Canada.

Mr. Dunbar was of a singularly retiring and undemonstrative disposition, and had no taste for public life. In politics he was an old-time Whig and Republican. He was a very busy man, and devoted his entire time to his important business. No man stood higher among those who knew him than Robert Dunbar. He was scrupulously upright and honest in all his dealings, and his word on all occasions was as good as his bond.

Mr. Dunbar leaves a widow and two children—George H. and Emma G. Dunbar.

This year has proved, beyond a doubt, that Kaffir corn will stand the most extreme heat and severe and long-continued drouth. From all parts of the state we hear good reports of this crop. If farmers act wisely, next season they will plant at least a few acres of Kaffir corn. —*Advocate, Attila, Kan.*

THE EUREKA WAREHOUSE AND ELEVATOR SEPARATOR.

The machine of which illustration is here given has achieved high popularity among the leading and largest elevator owners and operators of the United States. It is built by S. Howes at his Eureka Works—which by the way is the largest establishment of the kind in the world—at Silver Creek, N. Y., in eight different sizes, and in facility and perfection of operation it is justly entitled to be ranked as a model machine.

It is adapted and fitted for every possible requirement of the warehouse or elevator owner, and in this perfect adaptation to all requirements is to be found the cause of its great popularity. It may, for instance, be used as a receiving separator, and in this capacity its operation has always been of the most satisfactory and perfect nature. Again, it may be employed as a cleaning separator, and in this capacity its operation is so perfect that wheat cleaned upon it may be passed directly to the scouring machines without further preparation for the milling processes. Of course the machine is not intended to perform the offices of a milling separator, but so perfectly is it constructed and so nicely can it be adjusted that every operation from the simple receiving of the wheat to ridding it of every vestige of loose impurities may be performed on the one machine.

In operation the machine is entirely dustless, the large fan absorbing and forcing away all the dust as the wheat is delivered into the machine. The feeding apparatus is so constructed that the operator may accurately determine the amount which shall pass into the machine, yet should any undue accumulation occur before the wheat passes into the machine the "feed" will automatically relieve itself, thus avoiding "choke up," and at once resume its position. A glance at the cut will readily show how this is accomplished.

A separation preliminary to the real cleaning operations is effected by means of a "scalper" upon which the material is delivered directly from the automatic feed. Here the coarsest impurities are eliminated, greatly lessening the labor to be performed by the regular cleaning screens.

A few words about these cleaning screens: They are, perhaps, twice as wide as they are long, and are given a lateral vibration, which insures a perfect distribution over their full surface, of the material under treatment. For this method of construction and movement strong claims are made by Mr. Howes, and certainly his judgment, based upon an active connection of more than a quarter of a century with the grain-cleaning machinery business, carries great weight. He says: "I have invariably found that the lateral vibration is conducive to perfect distribution of the material over the entire screen surface, and this evenness of distribution not only permits, but assures, rapid and perfect separation. It does not interfere with the free passage of the material down the screens, but actually facilitates that passage by preventing accumulations which have been known to occur under other forms of construction."

It will be observed that the zigzag arrangement of sieves is employed. For this arrangement strong claims of advantage are also made, the principal being that the throwing off of the coarse stuff, separated by the first screen, very materially lessens the labor to be performed by the second screen, and assures its more perfect operation. This claim appears to be well based.

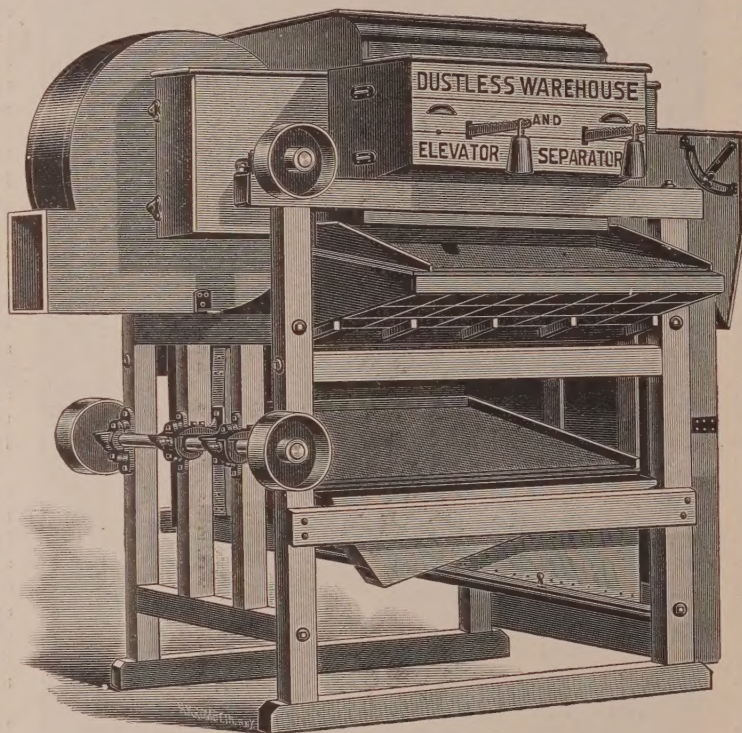
An ingenious arrangement of cockle screens assures the removal of small seeds and cockle, and indeed, the entire machine leaves little if anything to be desired by the prospective user. In capacity it may always be relied upon to successfully, and satisfactorily, reach the limit set for it. It is remarkable for its light-running qualities and steadiness while in operation. It is most perfectly balanced in every way to avoid undue wear, by reason of extraordinary strain. It can be made to clean more or less perfectly, at the will of the operator, by changing screens, which are interchangeable. When fine screens are used the capacity of the machine is, of course, lessened, but it then has many of the advantages of the milling separator, having the lateral shake movement, which is a superior arrangement for removing oats, etc., from wheat.

Two sets of screens are supplied with each separator, and parties ordering machines can choose any two sets required, and if additional screens are wanted they may be had at reasonable prices. Of this machine eight regular sizes are built, each of which has automatic feed, ranging in capacity for successfully handling from 80 to 2,000 bushels per hour, according to the kind of grain under treatment. Screens for cleaning rye, oats, corn, etc., can be had when required. (One set of screens will clean both corn and oats.) A cockle screen and blank sheets, to be used when the cockle screen is not required, are furnished with each machine.

Further information may be had by the interested reader by addressing the sole manufacturer, S. Howes, Silver Creek, N. Y., who will cheerfully supply particulars touching this or any other of his most extensive line of separators.

DISEASED WHEAT.

There appeared during the present season in many portions of Ohio, says the *Farmers' Review*, a disease attacking the heads and kernels of wheat, which caused a serious shrinkage in the yield. The farmers who suffered by it first observed its presence just as the heads were begin-



THE EUREKA WAREHOUSE AND ELEVATOR SEPARATOR.

ning to mature. At that time the upper or lower half had prematurely whitened, leaving the rest green, the whitened part having on many of the glumes a more or less distinct orange covering of the mycelium of a fungus. This disease has been noticed in various parts of the country for many years; its occurrence has not been recorded. Dr. C. M. Weed, who has made a careful examination of the fungus, pronounces it to be a species of *Fusisporium*, and apparently the one described by W. G. Smith as *F. culmorum*. The effect of this fungus on the kernels attacked by it is most disastrous. They become mere shells covered inside and outside with mycelium, and in passing through the threshers are blown away with the chaff. The disease often causes a shrinkage in yield of from one-third to one-half.

It is said that grasshoppers are devouring the fall wheat in the vicinity of Bloomington, Ill. It is not generally known, but it is just as true, that chinch bugs have destroyed all the ice bergs in Southern Kansas.

THE *Chicago Times* says: "There is a possibility that the Board management may weaken in its quotation policy. The Chinese wall plan of shutting the world out from quotations is not what it is cracked up to be. People who are asked to trade on the Board of Trade naturally want all the information that is going, and they regard with suspicion efforts to embarrass them in getting the news promptly and with the least friction. It is extremely doubtful, however, whether the wide open policy will go into effect under the present administration."

COMPETITION IN WASHINGTON.

Manager Austin of the Grain Elevator Company, has returned to this city from Eastern Washington. He found that Portland and Tacoma were in the field and were trying to control the market.

It is to be expected that the old order of things will not yield without a struggle. Portland has for so long a time enjoyed a monopoly of grain traffic that she regards all of Eastern Washington her own. Tacoma very naturally sees that Seattle has every advantage, and makes a futile effort to defer the certain results of superior location and equal freight rates from the interior.

The buyers from these two points are endeavoring to corner the grain east of the mountains, and are bidding 5 to 6 cents more per bushel than the world's market will justify. They are virtually offering a premium for consignments.

This sort of competition can have but one end—defeat. Eastern Washington produces too much grain—it is too large a country to be handled by Portland or Tacoma. They will simply be out of pocket a large sum, and in a short time Seattle will get all the grain that can be handled here at a fair figure.

This city brings its grain from the interior for the same figure given Portland and Tacoma. Seattle is sixty miles nearer the ocean than Tacoma, and 110 miles nearer than Portland. This is the sort of logic that cannot be overcome by a little flurry in prices of wheat.—*Press, Seattle.*

NEW ELEVATOR OF CRABBS & REYNOLDS.

The enterprising firm of Crabbs & Reynolds of Crawfordsville, Ind., have just completed a new elevator on the site of the one destroyed by fire July last. The elevator building is 30x51 feet and three stories high. The basement is built of stone, and contains the main driving shaft, wheat and corn sinks, corn sheller and conveyors, so arranged that corn or wheat can be unloaded from wagons on the south side, or from cars on railway switch on the north side of the building.

The wagon dump and Dermont Scales are covered by a shed. The first story contains a three-high roller cornmeal mill made by the Willford & Northway Manufacturing Company of Minneapolis, Minn., and a feed mill. The second story, 21 feet high, is built of crib work and is divided by crib-work partitions into eight bins, one of which contains a hopper scale of 1,000 bushels' capacity. The capacity of the house is 24,000 bushels.

The third story contains a Huntley, Cranson & Hammond No. 6 Separator, a corn cleaner, a meal bolter and purifier. The building is covered by a steel roof, and the walls are protected by steel weatherboarding. The engine and boiler room at the east end of the building is 15x30 feet. The house is the most complete elevator of its size in the state of Indiana, and has cost \$7,500.

BETTER TIMES FOR ELEVATOR MEN.

C. A. Pillsbury, the great Minneapolis miller, was interviewed by a correspondent of *The Financial Times* of London, while on his way home from Europe. During the interview Mr. Pillsbury spoke very highly of Van Dusen and his colleagues of the Chicago and Northwest granaries. Times have been bad for elevators, but he thinks elevator stocks worth buying now, and he has backed his opinion by buying a half interest in the Empire elevators, besides making smaller investments in several similar properties. The crops in the Chicago and Northwestern section, he fears, are again light, but Van Dusen is a good, straight man, he says, and the business is sound and one which will pay satisfactory dividends over a series of years.

The exports from Tacoma by water during the twelve months ending with July, included 1,092,015 cents of wheat valued at \$1,385,000, and 16,755 barrels of flour valued at \$58,640.

THE NEW WORKS OF THE WEBSTER MANUFACTURING COMPANY, CHICAGO.

Out at Western avenue and West Fifteenth street is located one of the most complete industrial establishments to be seen in Chicago. Not that it is of enormous size, though it covers two acres; but that, as stated, it is a model of completeness for the purposes intended. It is a fitting cap-sheaf to an honorable business history of fourteen years.

The original firm of Webster & Co. commenced business in a small way in 1876. Many of the present patrons will remember the old quarters at No. 13 Kinzie street, where a single room in a one-story building served the purposes of factory, salesroom and office. But business prospered with the little establishment, and before long a commodious shop was built at the corner of Ontario and Wells streets. Here the Webster & Comstock Manufacturing Company, the style of the company formed to succeed the original firm, remained until the recent removal to their new quarters, which again is occupied by the Webster Manufacturing Company, which is now the style of the company.

Our illustration gives a very fair idea of the extent and location of the buildings. The main building is 230 feet long and 65 wide. In front it rises to the height of four stories, to give room for commodious draughting rooms, a fire-proof vault, and in the upper story rooms for the watchmen. The rear portion of the building is two stories high, and in the rear has a large pattern room separated from the rest of the building by a fire wall. In this building is carried on the woodworking and sheet iron work necessary in connection with their business.

The machine shop is separated from the main building by a driveway, which gives entrance to the space within the buildings. It is L-shaped, the front portion being 170 feet by 65, and the L 107 by 65. It is one-story high, perfectly lighted in all its parts, and is a model shop in every respect. The boiler room is located to the left of the machine shop. The Buckeye Automatic Engine furnishes power also for driving an electric light plant, with which the works are lighted. Power is transmitted by rope drive from the machine shop to all parts of the establishment. In fact, the whole establishment is a practical illustration of the advantages of rope drive and the friction clutch.

In the machine shop are located the machine tools for the heavy work which the company is turning out for a variety of purposes, notably for rope-driving plants. Many of these tools cost a small fortune, and the whole equipment of the machine shop has been made as complete as money and experience could suggest.

The foundry is located in the rear of the machine shop and is about 100 feet square. It has a capacity of fifteen tons per day, with room for increasing the capacity, as exigencies may require.

Throughout the works the effort is everywhere noticeable to have the work done under conditions which insure skill. There is plenty of light, good ventilation, space for the machinery and every precaution taken for the comfort and convenience of the workmen. The employees number about 200, many of whom have worked for the company for years.

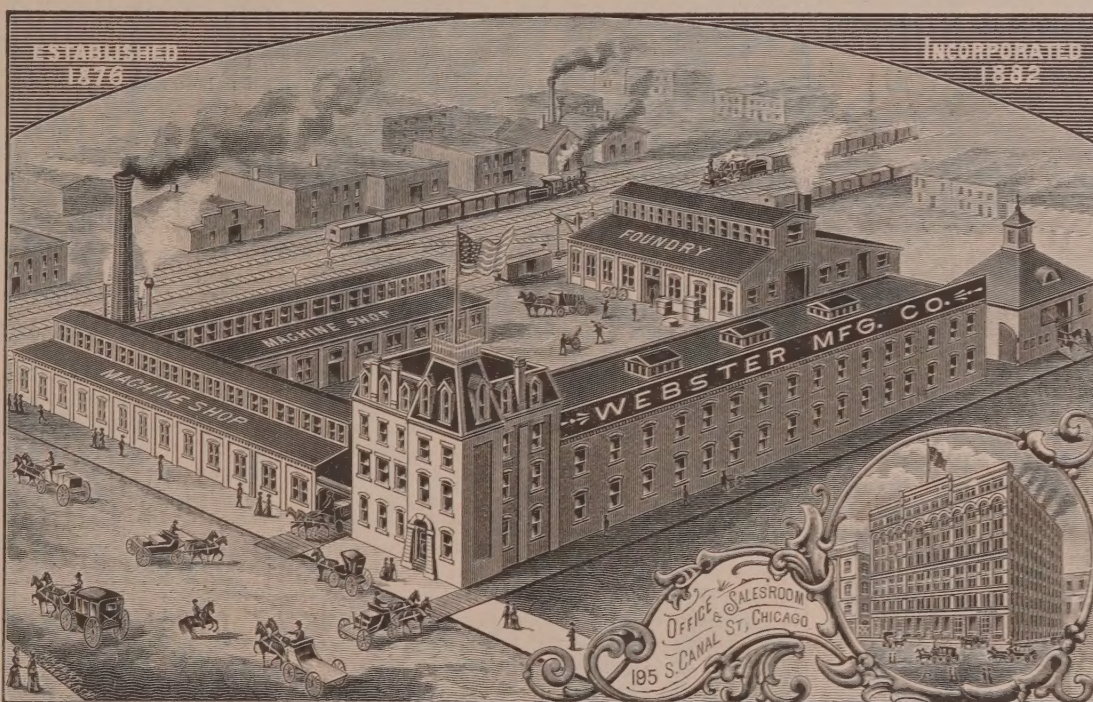
The offices and salesrooms of the company are at 195 S. Canal street, only a step from the heart of the city. Here, as at the works, is every facility for the dispatch of business, and visitors are always welcome.

One interesting feature of the Webster Manufacturing Company should not be omitted. Appreciating the

justice as well as the policy of interesting the employees personally in the success of the company, the management decided last April to put the entire business on the co-operative basis. We gladly give below a rough idea of the plan, as we believe that out of the co-operative principle must come the relief from troubles that now environ the industrial world.

Starting out with the idea that a man must first have proved his fitness to be a profit sharer, the concern make an arbitrary rule that no employee who has not served at least two years with the company shall be entitled to any profits. After that his name is enrolled on the list of profit sharers, and each employee, from the porter of the establishment to the confidential clerk, receives a certain per cent. at the end of the year on the amount of wages paid him. Thus, a man receiving \$750 a year, if the management decide to pay a 10 per cent. dividend to employees, will receive \$75 additional; or the man receiving \$3,000 a year will receive \$300 additional. The amount of percentage, however, to be paid out to the employees will rest entirely with the management, the same as the dividends to the stockholders, and depending entirely upon the success of the business, so every man is put on his mettle to do his best, knowing that his efforts will increase the general profits.

In addition to this, the company have incorporated an



NEW WORKS OF THE WEBSTER MANUFACTURING COMPANY AT CHICAGO.

insurance scheme, by which all the employees can insure their wages against loss on account of sickness. Each employee is advised to become a member, and to pay it to the general fund 1 per cent. of his wages. Thus, if a man is receiving \$15 a week, he pays 15 cents a week into the general fund. The officers of this society are all chosen from the men, the officers of the Webster Manufacturing Company all paying 1 per cent. of their salaries into the fund, but accepting no benefit from it. The plan has worked very successfully. Every man who is sick even a day is paid one-half of his wages, upon his case having been passed upon by the advisory committee.

The company have found that this plan of co-operation and insurance has worked very nicely, the men having become interested in it, and out of it we believe will grow a much closer alliance between the company and its employees.

During the twelve months ending with July 1, 747,067 cents of wheat valued at \$2,203,682, and 321,931 barrels of flour valued at \$1,168,616 were exported from Portland. Most of the exports were taken to Great Britain.

A novel menu, especially suitable for banquets given to grain dealers, is in the form of an ear of green corn with shaded green silk tassel, and a real husk covering decorated with Greek borders and flowering vines in dull gold. Attached to a spring roller within the cob is the parchment menu, which is thus kept out of sight, except when needed for consultation. This pretty novelty is finished with corn-colored ribbons.

HYBRIDIZATION OF WHEAT.

Within the last ten years considerable attention has been paid the hybridization or cross-breeding of wheat. By hybridization is meant mingling the life or blood of one variety with that of another, or, in other words, inculcating or grafting. Many kinds of grain and vegetables will readily mix when sown or planted near each other, but this is not the case with wheat. Any one may mix a dozen or more kinds of wheat together and sow them promiscuously on a piece of ground. At harvest-time each grain will be found to have produced a head of its own kind, and not once in ten million times will they hybridize or mix. But this does sometimes happen, and in this way some of our most popular, and productive kinds originated, such as the Fultz, Clawson, Fulcaster, Valley, Martin, Amber, etc.

It may not be generally known that there are sexual varieties of wheat (male and female) same as in animals and other plants. To hybridize or cross-breed these different kinds is a very laborious and difficult task, requiring great skill, a perfect knowledge of the habits and sexual habits of the plants, constant care, patience, and a long time to accomplish so as to get results to pay for the time and labor spent. Only a few persons in the United States have ever succeeded in artificially hybridizing or

cross-breeding wheat, but in one or two cases the result has been highly satisfactory. The Hybrid Mediterranean is the offspring of a cross between the Diehl and old-fashioned Mediterranean wheats, and was successfully accomplished by a gentleman living in the state of New York. It combines the best qualities of both its parents and is a valuable acquisition to our list of hardy and productive varieties.

Owing to the deterioration of the wheat crop in some parts of the British Empire, the Royal Horticultural Society of England offered a large sum for the hybridization of a certain number of varieties of winter wheats to be crossed with their own and other productive sorts from all parts of the world. This laborious and tedious task was undertaken by Carter & Sons of England, undoubtedly the largest seed-growers in the world. Seven years were required to accomplish this object and to get seed enough to distribute in various sections of the world. But the time and labor have been well spent; they produced eleven distinct varieties which are the result of their hybridization. Many of these are remarkably early, valuable and productive sorts which will undoubtedly in a few years completely revolutionize the wheat culture of the world.

On the seed farms of Samuel Wilson, Mechanicsville, Bucks county, Pa., these eleven new hybridized varieties could be seen the past season growing side by side, and were admired by hundreds of people, many traveling long distances to see the beautiful and interesting sight.

—*Kansas Farmer.*

Last year the two Dakotas produced 3,288,115 bushels of flax, and Minnesota 2,485,880, a total of 5,773,995 bushels, while all the rest of the United States only produced 4,677,801. On the increased acreage this year the Dakotas would have turned out a flax crop of 4,500,000 bushels had not the drouth blighted it.

The receipts of flaxseed at Chicago during the first nine months of 1890, according to inspector's report, amounted to 3,776,000 bushels, against 1,660,500 bushels for the first nine months of 1889. The receipts for last September alone were more than for the first nine months of 1889, being 1,999,000 bushels. The shipments for the first nine months of this year were 2,248,156 bushels, against 1,399,553 bushels for the same months of 1889.



[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interests of the trade at large, or any branch of it.]

HAVE DISSOLVED.

Editor American Elevator and Grain Trade:—Inclosed find \$1 for yearly subscription to the AMERICAN ELEVATOR AND GRAIN TRADE from October, 1890, to September, 1891. The firm of McDonald, Cook & Co. having dissolved, you will hereafter send it in my name.

Yours very truly,
Boston, Mass. HORACE COOK.

WILL BUILD.

Editor American Elevator and Grain Trade:—I have received a sample copy of the AMERICAN ELEVATOR AND GRAIN TRADE. Inclosed find express order for payment for same for one year. I intend to put up soon an elevator at some point in Michigan, my native state. I am buyer for the Northern Pacific Elevator Company at this place.

Yours truly,
Belmont, Wash. M. G. EWER.

NEW ELEVATOR.

Editor American Elevator and Grain Trade:—Our new 30,000-bushel elevator that we are building on the site of the one destroyed by fire on July 17, is nearing completion. It will be one of the most complete and convenient elevators in the state. We will place in it a roller feed and meal mill. We will be ready for business inside of thirty days. Inclosed find \$1, for which send us your journal for one year.

Respectfully yours,
Crawfordsville, Ind. CRABBS & REYNOLDS.

HAVE OPENED OFFICE.

Editor American Elevator and Grain Trade:—We have just opened an office in Room 4, Corn Exchange Building, where we are prepared to handle all kinds of grain elevator and mill machinery. The Excelsior Grain Cleaning Machinery, manufactured by the E. H. Pease Manufacturing Company of Racine, Wis., is a specialty with us. Having read your journal, we like it very much, in fact we don't think we can afford to be without it. Inclosed please find \$1 for one year's subscription.

Yours respectfully,
Minneapolis, Minn. HOLBROOK & SHERBURNE.

HONEST INSPECTION AND WEIGHING WANTED.

Editor American Elevator and Grain Trade:—In regard to the state inspection and warehouse law of Nebraska will say that I haven't given the subject much thought as yet. However, I can't see how the country dealers can be in worse shape than they now are, and think any change will be for the better. If we can get honest inspection and full weight it will help us wonderfully. I wish you would send me the AMERICAN ELEVATOR AND GRAIN TRADE from now on, as I think it a good thing for grain men to take.

Yours truly,
Hastings, Neb. W. H. FERGUSON.

NEBRASKA INSPECTION.

Editor American Elevator and Grain Trade:—In reply to your inquiries, would say that in my opinion a Nebraska state law providing for the regulation of public warehouses, and the inspection of grain at Lincoln and Omaha, Neb., would be of no particular benefit or especially detrimental to the country dealers in this state. Most of the grain coming to Lincoln or Omaha is simply in transit to Eastern markets, and it would seem that state inspection at either of the above points would be an unnecessary expense, as most of the corn bought from country dealers by Omaha and Lincoln elevator men is on basis of Eastern inspection, and the result would be simply making two charges for inspection where there should be but one. The inspection of grain in Nebraska elevators would probably be more rigid than St. Louis or seaboard inspection, as the Western elevator would have

to be protected in the inspection against any possible loss through deterioration while in transit to Eastern markets. State inspection of grain, except at large accumulative and distributing cities, in my opinion is an unnecessary tax upon the producer. As to the advantages or disadvantages to the grain trade of the cities where the law would be enforced, I think it would be advantageous to the extent of establishing such cities as grain markets, which cannot be successfully done without some standard inspection of grain.

Yours truly,
Lincoln, Neb. MASON GREGG.

WASHINGTON CROPS.

Editor American Elevator and Grain Trade:—The crops here and over all the Palouse country are fine, and it has been the finest weather for harvesting and threshing that I can remember. I have at hand a copy of the AMERICAN ELEVATOR AND GRAIN TRADE, and must say I am well pleased with the contents, and in inclosing my subscription to you do so with the idea in view that while I am in a different section of the country, still there are a great many of the important matters so ably discussed in your columns that have a heavy bearing upon us here. Inclosed please find \$1, for which send me the AMERICAN ELEVATOR AND GRAIN TRADE for one year. Begin my subscription with your next issue, and oblige

Respectfully,
Palouse City, Wash. W. F. CHALENOR.

SLANT OF ELEVATORS.

Editor American Elevator and Grain Trade:—In the article by R. James Abernathy on "Construction, Capacity and Speed of Elevators," in your September issue, he says: "There was a time, and not so very long ago, when elevators were constructed with a great deal of slant; that is to say, they would start with the boot at one side of the building in the basement, and land the head at the other side of the building at the top. It was then supposed that unless an elevator was so put up it could not be made to discharge." It was not then supposed anything of the kind.

The writer was formerly employed in an elevator erected in 1858 by the late Mr. A. Miller of Chicago. The receiving elevators in this building "started with the boot on one side of the building in the basement," and landed not at the "other side of the building at the top," but in the center of the top floor of the cupola. This was obviously for the purpose of delivering the grain in the center of the top of the house, where it could be distributed to the storage bins to the best advantage. The shipping elevators were placed in the center of the house and are perpendicular. Concerning the objectionable features of slanting elevators, he mentions wear of casing, wear of belt, loss of power, etc. There is, no doubt, a loss of power, but as to wear of casing and belt, it is only necessary to say that the same belts and casings are still on deck and able to do good work.

AN OLD HAND.

DISCREPANCIES IN GRAIN MEASURES.

In a late article by H. W. Richardson in *Harper's Magazine* it is stated that Dr. Franklin B. Hough, formerly superintendent of the New York state census, published several years ago a curious table showing the number of pounds avoirdupois in a bushel of various commodities as determined by custom, and finally by legislation, in different states and territories in this country. He found four different bushels of corn, four of rye, five of barley, seven of oats, and seven of buckwheat. These measures differed so widely that 1,000 Kansas bushels of barley at 48 pounds per bushel would become 1,500 bushels in New Orleans, where 32 pounds answered to the same name, and 1,000 Kansas bushels of rye at 56 pounds would become 1,750 bushels in the same market.

Some of the wisecracks that are rattling around in the editorial chairs of Dakota and Minnesota papers are still howling about the refusal of the elevator men to receive grain for storage. The elevator men keep right on receiving, and say nothing.

Notwithstanding the fight that has been made by the shippers generally against the uniform bill of lading, and the victory gained by Western shippers in their contest, the lines in the Southern Steamship and Railroad Association propose to keep it in force.

NEW ORLEANS AS A GRAIN EXPORTING PORT.

The recently published report of the Board of Grain Inspectors of New Orleans showed that during the past commercial year there were exported from this port to foreign countries 14,156,199 bushels of corn, against 12,918,056 during the preceding year, showing an increase of 2,238,143 bushels. Of wheat the exports amounted to 1,739,788 bushels, against 885,957 bushels during the preceding year, a gain of 853,831 bushels. The rye exports were 171,369 bushels, against none at all during the preceding year.

This increase is made more striking by comparing it with the years preceding the season of 1888-'89, as that was a year of great progress in the grain exporting trade. This gratifying increase in the export movement of grain at this port was in a measure the result of the very large corn crop, but it was also largely due to the improved facilities prevailing here. The handling of the bulk grain by rail became a pronounced feature during the past year, and the increase in exports is largely due to that cause.

Previous to the past season nearly all the grain intended for export came here in barges from St. Louis, but the erection of the grain elevator at Southport started bulk grain in cars in this direction, and for a first season the movement was extremely large. This handling of grain for export by the railroads has thrown open to the influence of this port large sections of country that had not before been reached, and as soon as more elevators are provided, a further development of this movement may be looked for. The great success of the elevator at Southport cannot fail to stimulate the erection of other establishments. With a splendid deep water harbor, ample tonnage, and cheap freights, this port offers exceptional facilities for grain shipments, provided the necessary elevator facilities are secured.—*New Orleans Picayune.*

FLAX DISEASE.

Early in May of the present year a large number of the citizens of the southwestern part of Minnesota, especially of Jackson and Cottonwood counties, presented a petition to Gov. Merriam, asking for his assistance in discovering some cure or prevention for the disease which has affected so disastrously the flax crop in that quarter. The matter was placed in the hands of Prof. Otto Luger of the state experiment station, who investigated the matter and has made a report, from which we take the following:

"One of the most important branches of farming in the state of Minnesota, at least in its more southern portions, is the cultivation of flax, not for its fiber, but chiefly for its seed, the raw material for linseed oil. Minnesota produces at present more flaxseed than any other state in the Union, and this industry is steadily increasing. Many reasons could be given for this increase, but the leading one is the general failure of the wheat crop, due largely to the ravages of chinch bugs.

"During the last five years the flax industry has suffered greatly in many regions from a mysterious disease of the plants, and grave fears are entertained for the future success of flax culture.

"As I had some experience with this disease in 1889, I immediately proceeded to the region about Windom, where some land badly infested could be rented.

"Several practical methods to investigate this trouble presented themselves. One, based on the assumption that exhaustion of the soil by previous crops of flax was the cause of failure, led to the first series of experiments; another, that a specific disease caused the death of the plants, led to a second series. The results of both series of experiments proved beyond doubt that nothing very practical can at present be advised to prevent losses. But during these two series of experiments many facts were observed, which, together with other observations made last year, indicated the real cause of the flax trouble and necessitated a third series of experiments, which is now partly finished. Still, it will be necessary to continue these experiments, not in the field but in the laboratory, where all the surrounding conditions can be observed or kept under control. This will take some time, however, as the conclusion of each experiment requires about three months."

A waggish writer fears that the "chess" so loudly complained of will "checker" growth of wheat.

MORTON'S NEW IMPROVED TREAD HORSE POWER.

The cut given herewith illustrates the latest improved elevator horse power, with adjustable elevation, made by the Morton Manufacturing Company of Romeo, Mich. This machine is built especially for elevating grain. It has large bearings and $\frac{3}{4}$ -inch cold drawn steel rods, case hardened. It is also supplied with this company's self-oiling traverse wheels, illustrated herewith. These wheels it is claimed keep the rods well lubricated, thus increasing the life of the chain one-half, and allowing the power to run much easier than with common wheels. Many years' experience has taught them that the links, cross rods, and traverse wheels are the vital points of a tread-power, they feel confident that with their self-oiling traverse wheels, larger bearings on links, and case hardened, cold drawn steel rods, they have added at least one-half to the service of this power.

The adjustable elevation is an important feature of this machine, as it overcomes a great deal of trouble and lost power. When elevating light grain or running a cleaner the great value of the adjustable elevation can be seen in a moment; for instance, instead of removing the horse and prying up and placing blocks under the runners, a few turns of the crank gives the desired power without changing the tension of the belt. It is claimed the machine has durability, and is the most convenient and efficient power possible for grain elevators. The machine needs no attention after starting, and can be stopped or started from the office by means of a rope.

The chain is made of the best malleable iron and each cog in the chain is a small roller, which, instead of rubbing, as the teeth of gear wheels do, rolls into each cog of the pinion which greatly reduces the friction. The chain is ribbed up heavy and has long bearings at each joint. The traverse wheels are turned up in a lathe, and cross rods of cold drawn steel, making the easiest running and most durable chain made.

The patent automatic governor works as accurately as an engine governor, and can be regulated to run fast or slow by running the balls out and in on the levers, or turning thumb nut to give the springs more or less tension. The machine can be adjusted to run a fanning mill or cleaner without any variation of speed. Should the belt be thrown off when the power is running at its fullest capacity there will be no perceptible difference in the speed.

These governors are guaranteed to act and control the motion under all circumstances, if directions as to adjusting are followed.

The manufacturers claim that it is the only power having an adjustable elevation allowing the elevation to be changed without removing the horses or changing the tension of the belt. A guaranteed perfect governor that can be adjusted to run light or heavy machinery, and to keep the motion under perfect control at all times. It is the only power having self-oiling traverse wheels, self-oiling and self-adjusting boxes, case hardened cold drawn steel rods, and larger bearings than any other power on the market. They claim that it will do a greater variety of work, is easier moved and quicker put in line and adjusted with driven machinery, takes up less floor room, and is easier on horses than any other power made.

It is claimed that it has the following advantages over a sweep power: The small space occupied by power. The uniform and steady motion always to be depended upon. No attention required only in starting and stopping power. Nearly double the power can be obtained with this power over sweep.

It is also claimed that it has the following advantages over steam: The enormous cost of fuel and skilled labor required to keep in order. No pipes to burst and freeze in cold weather, and a great reduction obtained in insurance. By inspection of the cut it will be seen that the

power is placed on runners, and the main body of power is swung from center on trunions, allowing it to be adjusted to any elevation required by means of rack and pinion.

EFFECT OF SILVER LEGISLATION.

The London *Daily Graphic* has the following: "Last year the imports of Russian wheat decreased greatly, as compared with that of the preceding year, because of the deficient crop this year, with every prospect of an excel-

staple industry of the country suffers in equal ratio. This is, of course, a consequence of the chronically rotten condition of the paper rouble, since the close of the Turkish war. The purchasing power of the rouble has remained virtually the same during the last decade, notwithstanding its fluctuating foreign value. If its enhanced value can be maintained, its purchasing power on the spot will eventually adjust itself to its value abroad, but the process of such an adjustment will be necessarily slow and uncertain, and in the meantime positively disastrous to Russia's foreign trade.

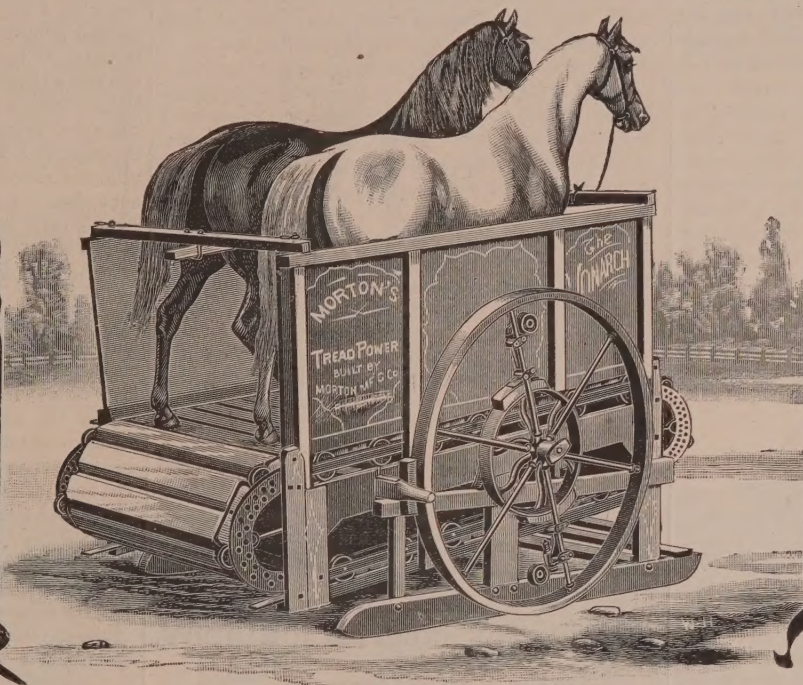
Advices from Odessa, dated Sept. 9, state that the value of the trouble continues to rise by leaps and bounds. Exchange on London is to-day quoted at 7 roubles 95 copecks, and by the middle of the month, judging from present appearances, it will rise to 7 roubles 50 copecks, a figure which means the utter demoralization of the grain export trade. A few of the more wealthy and solidly established export houses may weather the storm, but it is morally certain, that a very considerable number of the numerous second and third class concerns will go down before long. Two or three inevitable and extensive failures are already spoken of. Out of about 45 British steamers here just now, over 20 are lying, end on, over against the harbor breakwater waiting their turn for loading berths. In shipping circles this serried rank of waiting vessels is emphatically termed "rotten row." All these steamers are fixed on forward charters.

A PETRIFIED CORN-FIELD.

A farmer of Claiborne county, Tenn., tells the following tale of a storm that visited his place recently and its wonderful effect upon a neighbor's cornfield: "An hour after the storm I was sitting near the fire, when I heard a horse galloping at full speed, and when I went out to see who it was, there stood Jake Warren, a neighbor farmer who lives about a mile and a quarter from me. He was as pale as a ghost, and was trembling all over. It took him over ten minutes to commence to tell me what he had to say, and as he was talking I thought he was crazy.

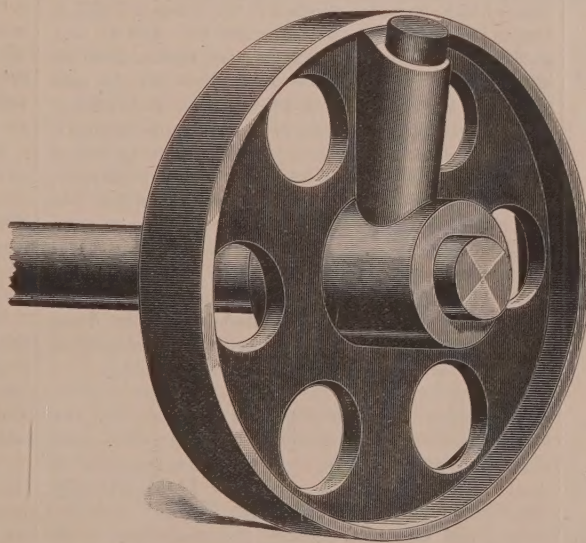
"He stated that a big green cloud had come over his place, and that something which looked like balls of fire had fallen all around his house. He had five acres of corn growing in a field next to the house. After the storm had cleared away, he went to see what damage had been done. He saw that some corn had been blown down, and entering the field, he found every stalk turned to stone. There were two fine hogs in the field, and they, too, were petrified and standing there as if cut out of solid rock. Myself and wife thought the man was raving mad, but induced him to remain over till morning, when we promised to visit his place with him. That we did, and what we saw will be remembered so long as both live. There was the corn blown down, but every stalk of it was petrified. It was not as hard as granite, but it appeared to be more like soft stone. I took my knife and cut it, and it became powder. The ears were very hard, and they could not be broken with the hand. The leaves were brittle, and if you struck them they would break like glass. The hogs were there, too, looking natural enough, but they were as hard as stone."

The enactment of a public warehouse law by the legislature next winter will create a grain market in the state, open to all buyers, compelling the elevators owned or operated by incorporated companies to handle, receive, ship and store the grain of farmers and dealers without discrimination.—*Fremont (Neb.) Press*. State legislatures cannot force elevator men to operate their houses as public elevators, and every time it is tried one more law will be added to the already long list of unconstitutional granger laws.



MORTON'S IMPROVED TREAD HORSE POWER.

lent crop, there is likely to be still a small export of wheat from Russia, because the rouble has increased so much in value or rather the pound sterling has depreciated so much. Eighteen months ago the pound sterling was worth at Odessa twelve roubles and fifty copecks; now it is only worth eight roubles and fifty copecks. The Russian grain houses must therefore either cease to export



NEW SELF-OILING TRAVERSE WHEEL.

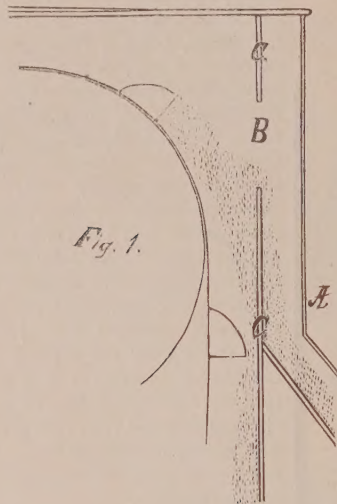
wheat or face bankruptcy; and of the two evils they have chosen the first. A small import from Russia, in a season when the yield of the American wheat crop is below the average, means for us that we shall be more than we would care at the mercy of the wheat speculators in America next winter.

The *Liverpool Corn Trade News* says: It is not, however, the exporters and shippers alone who are suffering, but the producers, more especially of the smaller class. Peasant holders are now compelled to sell the best quality of wheat at 70 kopecks the pood (36 pounds English), for which they last year received as much as one rouble ten kopecks. Every interest of the export trade of the chief

ELEVATOR HEADS.

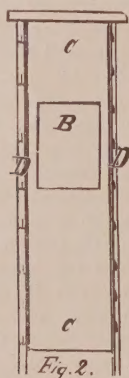
In treating the subject of elevators, says the *St. Louis Miller*, let us turn to the upper parts, or "heads," and conductors from the discharge. First taking up the subject of pulleys and belt travel.

Oftentimes it is noticeable that from the improper run of the pulleys and consequent improper traction of belts, the side casings of elevator heads are cut circling with the head pulley, until the pulleys and belts are visible. Of course, when this occurs the head pulley is wrongly positioned, and the disturbance means much more than the simple destruction of housings—it means waste through consuming power to no advantageous purpose. It

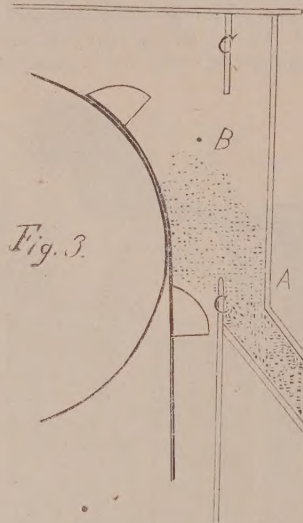


shortens the life of belts, and ruins buckets, which being torn to pieces, in turn ruin something else. Moreover, such elevators are constantly adding to other troubles the bad habit of choking, which wastes valuable material, stops the mill at unseasonable intervals and wears the millers out at hard and useless work at the very time their energies should be given to regulating some other part of the mill.

It does not require a great deal of time or space to explain the proper position of the shaft and pulley carrying the elevator band and buckets, nor is it necessary to dwell on the tom-foolery advanced by the ignorant theorist who claims that "the belt will climb to the high side of a pulley made high by raising that end of the shaft above level." The proper position of the elevator shaft is level. The head pulley should be true on the shaft. The elevator legs, while they may be satisfactorily "raked" or



sides of housings *DD* may be screwed. There are many elevators giving trouble from this simple cause, and the righting of the impropriety is very simple; observe *Fig. 3*. Cut out the partition *CC* until the material from the elevator buckets will pitch beyond it into discharge spout *A*. With elevators having a contracted discharge-opening, as *B*, *Fig. 2*: When the traction of the belt inclines



to either side, much of the material as it is discharged from the buckets will strike the screw timber, as left at *DD*, and be returned down the descending elevator-leg. But, cut out this "screw timber" and sustain the housing sides by button-strips, and a free discharge for the material is provided whichever side the running belt may tend.

PLACING OF CORN MACHINERY.

BY R. JAMES ABERNATHEY.

It was a low, dirty and nasty place where the corn sheller was located. The mechanic who had located it had evidently but little knowledge of how to put in elevator machinery, or, in fact, any other kind of machinery.

The pit was small and but little room for the sheller, nor was it deep enough, hence the boot of the elevator was thrust down to about the depth the sheller ought to have been. In order to discharge into the boot, the sheller had to be raised up when it was much too high to receive the corn from the dump hopper. And so, situated between the devil and the deep sea, that is, either too high to get the corn in, or too low to get it out, the poor mechanic, unable to see a yard before his nose in perfecting arrangements for machinery in advance of placing it in position, had to devise some means of getting around the difficulty; and, as might have been expected, the means devised were about as lame and defective as was the original arrangement.

The sheller was blocked up high enough to discharge the corn and cobs into the boot of the elevator, and an inclined half drag, half elevator, a sort of hermaphrodite, was constructed between the discharge of the dump hopper and the mouth of the sheller, for the purpose of conveying the corn from the hopper to the sheller.

Any practical man can see at a glance what an imperfect and unsatisfactory arrangement that was. But that is quite as near as many so-called mechanics, who aspire to be bosses and leaders in their particular branch of industry arrive at making a satisfactory job at any thing. There used to be a great many such mechanics scattered around, and especially through the great West, where skilled mechanics were few and far between, because of there not being sufficient employment. There has been a great change in recent years, but I think there are a few of the jack plane and hand saw boss mechanics still left, and elevator and mill men intending to have work done ought to be on the lookout for them.

Of course, the arrangement referred to did not work well; it could not work well; in addition to imperfect work, the corn was always scattered around indiscriminately by the mongrel feed, which, together with the dampness always present in such a pit and the water in wet spells, made the pit a cesspool of filth and rottenness calculated to make the denizens of a soap factory hold their noses, if they would have occasion to approach. The owners knowing no better, and supposing it was as good a job as could be done, let it run

until it ran them out of business or they failed any way, and other parties got hold of the concern, a mill and elevator combined. Their olfactories not having been accustomed to incense so sweet, and besides having some idea of the eternal fitness of things, loving order and cleanliness more than chaos and filth, appealed to the writer to suggest a remedy for the trouble.

The natural remedy was to widen and deepen the pit and make it water tight. To have done that, though, as the situation then was, would have involved much trouble, time and expense. Instead of recommending that plan, I suggested putting in a short perpendicular elevator to receive the corn from the dump hopper, and elevating it high enough to spout it into the sheller through a tight spout that would not leak corn. Heavy 18-inch buckets were used on a 20-inch belt, and when completed worked like a charm, much better than I had expected, as I was not very highly impressed with the utility of ear corn elevators, having seen some that did not appear to work well. This job, however, was done right in every respect, and as stated, worked with entire success and is still working. This case may afford a good suggestion to many others who are badly fixed in a like respect.

If the elevator pit is a low, filthy place, and there is no practical way of making it any better, then it would be much better to raise both the sheller and the boot of the main elevator, and put in a short stand of elevators to receive the corn from the dump hopper and feed the sheller substantially as above related. It will be found a great improvement and more satisfactory in every way. The cups of the elevator should never be less than 16 inches, and from that size up, according to the capacity of the sheller. For from 500 to 700 bushels' capacity use 18-inch cups; 800 to 1,000 bushels use 20-inch cups, and for 1,000 and upward, use 22-inch cups.

Extra care must be exercised in attaching the bottom of the elevator to the mouth of the dump hopper. The opening should be of such size and such shape as to prevent the corn from clogging. Ear corn, it will be understood, will not move so freely as shelled corn and other loose grain, and hence the necessity for much care in the construction of the connection. The foot of the elevator must set well below the bottom of discharge from hopper, so that the ears of corn will drop fairly into the buckets as they turn the horizontal center of the pulley. In no case permit the corn to drop down into the bottom of the boot, as is common with all kinds of loose grain, as the buckets would have a lively time trying to scoop up ear corn, and would never succeed in doing it, but instead continual chokes, broken and disabled cups would be the result. Common light iron cups should not be used in such an elevator. Buckets made of heavy steel plate and sharp enough on the edge to cut an ear of corn in two in case of a catch, are the most desirable.

The head of the elevator should be made quite roomy outward from the discharge, so that the corn can get away freely and roll without too much force into the sheller. It is only necessary that it be high enough to discharge fairly into the sheller and toned to the capacity of the sheller, so that the corn will be shelled and cleared as fast as elevated.

While it has heretofore been my practice in all cases, without reference to the lay or condition of the ground, to go down with a deep pit for the sheller, because I considered it the most convenient way of handling corn. But when we consider the trouble and expense attached to making a water-tight pit in low, marshy ground, it would undoubtedly be much better in many such cases to dig only a small pit, large enough for the boots of the two elevators, bring the sheller above the surface of the ground, and feed from short elevator, as above described. A small pit can be more easily taken care of than a large one, and would be much less trouble with the sheller out of it. Of course the pit should be made thoroughly water tight, either with cemented walls or with wooden or iron caissons sunk into it before the elevators are placed.

It is as important to keep the boots of the elevators dry as the sheller, and it can be done with much less expense, as it does not have to be as deep by about four feet, nor near so large in any other way as when made for sheller.

Instead, therefore, of recommending deep pits for the sheller to go down in low wet ground, I would advise the plan here described. But on embankments, or where the ground is high and dry, then go down, and go down deep and wide, so as to have room to work around the sheller. Let the corn run directly from dump to sheller,

and thence to elevator, which carries corn and cobs to cleaner above. It is a simple and convenient method, and should be adopted when circumstances will permit.

The consideration of this subject suggests another very practical addition to the ordinary elevator that will prove a great convenience under stress, and be of great value in lessening the cost of handling corn.

We are nearly all aware of the common method of constructing elevators with the view of handling corn quickly and cheaply. The aim is to arrange a house so as to be able to dump and shell corn as fast as it can be delivered, and some are so arranged and able to do it when everything is working right and no mishaps occur. But if the sheller breaks down, as it frequently does when compelled to shell rocks, railroad links, coupling pins, etc., then the corn receiving business has to stop until such times as repairs can be made, which is frequently two or three days or more, depending on the distance repairs have to come, by telegraph one way and express the other.

There are, too, a great many elevators that are not provided with shellers large enough, nor have they the power to shell the corn as fast as it can be delivered in the busiest season, even when running up to full capacity. To help all such cases, and to be of lasting benefit as well, it is suggested that all country elevators that have the ground room should run an extra stand of elevators up on the outside of the driveway with cups large enough to handle ear corn. The corn dump must then have two apartments divided by a perpendicular partition, on the top of which can be hung a swinging trap door that can be adjusted so as to shoot the corn on either side of the partition or either one of the half hoppers, one of which is made to run to the sheller direct, and the other to the ear corn elevator on the outside.

Running back from the driveway and at right angles with it, a crib must be connected of any width up to 20 feet. Through the center of the crib, just below the bottom, a drag belt must be run that will carry the corn to the sheller. Said drag belt can be driven of the shaft that drives the sheller. The length of the crib will be determined by the height of the corn elevator. It can be run out as far as it can be reached with a spout from the head of the elevator. A main spout will run from the head of the elevator to the far end of the crib, to which distributing branches will be attached at proper intervals for filling up the crib. The top of the crib can slant outward from the elevator building, making it quite deep at the building and the depth determined by the spout at the outer end.

The outside elevator can be driven by a chain run of the elevator shaft in the main building, by using a pair of small spur wheels, to get the motion right, as the two elevators discharge in opposite directions. The corn elevator should be cased in a small house, to protect it against the weather. All being ready, if the sheller is not running we dump the corn into the elevator, raise it up and shoot it over into the crib, where the drag belt takes it to the sheller at leisure. The great convenience of such an arrangement can be seen at a glance, besides it makes a good storing crib when carrying ear corn.

Reports from the western half of Kansas state that an enormous amount of wheat is being sown there, and that farmers who had no means to buy seed wheat are borrowing money on personal property with which to purchase the same. During the past month the state has been visited with good rain every week, and the grounds in fine condition. The acreage of wheat in many counties is almost double that of any former year.

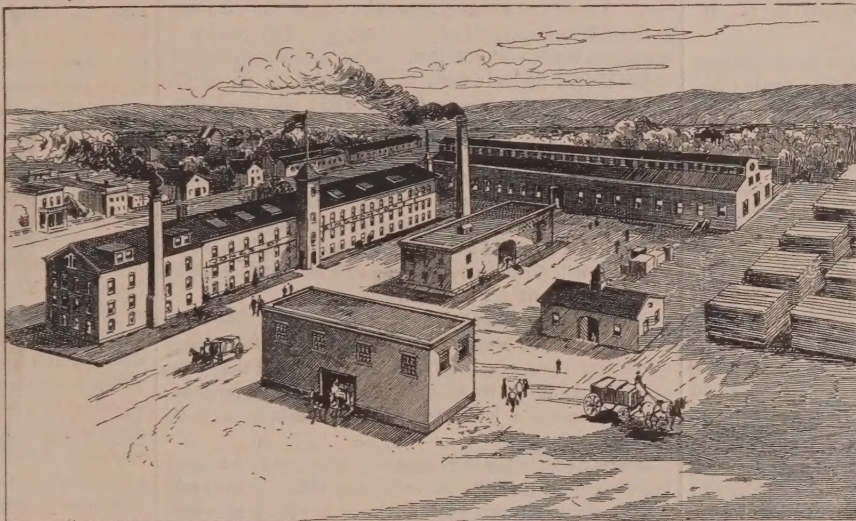
The Lake Shore and the Michigan Central are still suffering from the effects of the shippers' bill of lading boycott. It now transpires that the Grand Trunk and Wabash made contracts with the shippers while in the heat of their indignation over the action of the other roads in adopting the bill of lading, and as a consequence Grand Trunk and Wabash shipments keep up at the top notch, while the Vanderbilt lines are recovering the lost ground, but slowly.

THE SCALES OF "JONES OF BINGHAMTON."

By ingenious and universal advertising the scale works of Jones of Binghamton, located at Binghamton, N. Y., have become known throughout the civilized world. "Jones, he pays the freight," is a household word, and the Jones scales are sold over all this broad land, and largely in foreign countries; and the president of the company—Edward F. Jones, Gen. Jones, Gov. Jones, the original and only Jones in his line—has earned a reputation for enterprise, business sagacity, and success in his undertakings second to none in any line of manufacture. Probably no one has demonstrated more clearly the benefits to be derived from persistent and thorough advertising than Gen. Jones, and, what is of more importance to the army of customers whom he enlists, his goods sustain all the claims that he makes for them. His business motto is: Perseverance, fair dealing, and printers' ink; and his success is the result of keeping these three points ever in view.

The business is incorporated as "Jones of Binghamton." The management is largely in the hands of Mr. Gerry Jones, the secretary of the company, and under his skillful guidance the trade of the company is increasing more rapidly than ever before.

There is nothing particularly new or interesting about the Jones scales. They are based upon the principles



SCALE WORKS OF "JONES OF BINGHAMTON."

which have been demonstrated as the best in scale construction, improved, perfected and thoroughly well built, and they are sold at reasonable figures. They are of every class or style required, from postal and druggists' scales to such as weigh cars loaded with coal and ore; and in every style they sustain the crisp guaranty: "We warrant the scales for five years, and guarantee them to be equal in accuracy and durability to any scale made."

The trade of the concern has wonderfully increased during the past year, ending July 1—25 per cent. over that of the largest year is what they claim; stocks at factory cleaned out, and storehouses at St. Louis, Little Rock, Dallas, Montgomery, Dubuque, Tacoma, San Francisco and Washington "howling for more." As an indication of the position which these scales hold in the market, we will state that the company in competition on their merits succeeded in obtaining the government contract for postoffice supplies during the years 1890 and 1891 over all competitors.

Fuller information, descriptions of scales, prices, etc., are contained in the elegant new catalogue of the company, for which send to JONES OF BINGHAMTON, Binghamton, N. Y.

Out West excessive competition has led companies to write insurance on growing wheat while it is still green, and it is said that the unusual anxiety on the part of the companies to secure business has driven many farmers to smoke. The wind being an innocent party will, of course, blow many sparks from pipe to wheat field.

At Chicago 1,231 cars of spring wheat were imported into store during September, against 993 cars for the preceding September. The inspections for last September included 1 car No. 1, 352 cars No. 2, 757 cars No. 3, 112 cars No. 4, and 9 cars no grade, against 179 cars No. 2, 386 cars No. 3, 348 cars No. 4, and 25 cars no grade.

GRAIN ELEVATORS FOR RUSSIA.

The grain elevator has played such an important part in the development of the wheat and corn trade in the United States that, says the London *Pull Mall Gazette*, the Russian landholder has arrived at the conclusion that its introduction into Russia is all that is needed "to get rid of the evils of which he has been the victim." But the British consul-general, writing from Odessa, points out that the conditions of the trade in the two countries "are widely dissimilar, and though it is hoped that by the instrumentality of elevators a better system may gradually be introduced, the day is yet far distant when anything like the regularity and expedition with which grain operations are conducted in the States can be realized in Russia." While in the former country great care is taken in the selection of seed wheat which can be graded, the farmer being thus enabled to deliver his wheat at the nearest elevator, and to receive in exchange a certificate specifying grade, which is a negotiable instrument, "in Russia the qualities of wheat present such diversities of character as to be quite insusceptible of grading." No scientific selection of seed is attempted, "each farmer sowing what he has by him, so that the varieties of wheat may be reckoned at fifty or sixty if their cardinal differences and the modifications induced by the nature of the soil in which they are raised, are both taken into account."

The railway company is building an elevator at Odessa capable of storing over 100,000 quarters of grain. Nine other elevators on a smaller scale are also to be built at as many grain centers along the lines of the country. A credit of £65,000 has also been opened by the government in favor of the Kharkoff-Nicolaieff Railway Company for building an elevator at the port of Nicolaieff, and some smaller ones along the line of railway. "The managers of these establishments will be authorized to receive grain from the farmers at the market price of the day, themselves carting their own produce, and receiving advances on it. A beginning has thus been made to put within the reach of the producer the means of disposing of his crops at first hand; but a small minority only will at first be in a position to avail themselves of the advantages of the new system. As for the rest, they will still have to depend upon the Hebrew middleman."

LIVERPOOL AND THE PRICE OF WHEAT.

"Liverpool fixes the price of wheat," croak the free traders. It does nothing of the sort. It just buys what other nations have to spare after they have filled the mouths of their own peoples. The United States purchases wheat for 65,000,000 of people, Liverpool for about 30,000,000. It needs no argument to prove that the demand for 65,000,000 of people has vastly more to do with fixing the price of wheat than the demand for 35,000,000 can have.

But just as we had finished reading a free trader's assertion of Liverpool's price-fixing power, we opened a London newspaper, and under the heading, "Corn Markets," wheat being called corn in England, we read: "From the United States there is a paucity of news respecting harvests in the Southern states and California. But as New York and Chicago keep steady, or slightly advance rates, the situation is regarded as favorable by our sellers."

Will our free trade friends condescend to consider this: In the absence of full reports from America the English wheat market is uncertain—Liverpool does not fix the price, you see; the price is determined by reports of American rates—"but as New York and Chicago keep steady or slightly advance rates," says the English market reporter, "the situation is regarded as favorable by our sellers." That is to say, the seller in England holds his demand for high rates firmly because "New York and Chicago keep steady or slightly advance rates." If New York and Chicago had showed unsteady markets, or if their prices had been downward, English prices would have declined.—*Inter-Ocean*.

Trade Notes.

Hartley Bros., dealers in belting at Pittsburg, Pa., have sold out.

The Craig Scale Company of Charleston, S. C., has enlarged its scale factory.

The Williamson Belting Company, manufacturers of belting at St. Louis, Mo., have suffered loss by an explosion.

Kellogg, Ducey & McCauley, manufacturers of leather belting at Chicago, Ill., have been succeeded by Kellogg, McCauley & Terhune.

The McCormick Cotton-Seed Delinter Company has been incorporated at Fort Worth, Tex.; E. W. Taylor and others are incorporators; capital, \$1,000,000.

Milwaukee, Wis., will soon have another large boiler-making plant, a new concern, the Davis Bros. & Bastian Co., having made arrangements to build extensive works.

The Union Iron Works of Decatur, Ill., write as follows: "As to trade and prospects will say we have had an excellent trade for the past ninety days, with very good prospect."

A stock company has been formed at Des Moines, Iowa, with a capital stock of \$50,000, to manufacture the Eureka Grain Measuring Machine, patented by H. W. Grippie of that city.

The Morton Manufacturing Company of Romeo, Mich., have furnished the St. Paul & Kansas City Grain Company of Des Moines, Iowa, with nine of their Improved Elevator Horse Power.

The H. J. Deal Specialty Company, Bucyrus, Ohio, have furnished the Mandan Roller Mill Company, Mandan, N. Dak., ten of Deal's U. S. Standard Improved Grain Testers for their mills and elevators.

The Chicago Wire Goods Company has been incorporated at Chicago, Ill., to manufacture wire goods. The capital stock is \$100,000, and the incorporators are Chas. Kelley, B. W. McClellan and W. A. Hickey.

The Welles Manufacturing Company has been incorporated at Chicago, with a capital stock of \$10,000, to manufacture grain elevator machinery. The incorporators are J. H. Fitch, B. H. Waun and R. W. Closeen.

The Cleveland Leather and Belting Company has been incorporated at Chicago; to deal in leather, raw hides and articles made therefrom; capital stock, \$300,000; incorporators, A. C. Krueger, E. L. Shepard and W. Rossiter.

The Hennebopple & Harms Manufacturing Company has been incorporated at Chicago, Ill., to manufacture machinery. The capital stock is \$8,000, and the incorporators are Frank Hennebopple, Henry Harms and C. D. Clark.

The Wheeler and Thomas Roofing Company has been incorporated at Chicago, Ill., to manufacture roofing materials. The capital stock is \$12,000. The incorporators are John Wheeler, William K. Thomas and Charles Arvander.

The Jeffrey Manufacturing Company of Columbus, Ohio, manufacturers of roller and detachable chain belt ing, have recently filled several large orders for conveyors for foreign shipments, while their order book shows a large number of orders for shipments to different parts of this country.

The Lancaster Steel Roofing Company of Lancaster, O., will move its plant at once to Duluth, Minn., taking a site near the plant of the Ironton Steel and Iron Company. In Ohio it employed 25 men, and it expected that in its new plant it will employ 100 men. They manufacture steel roofing plates.

The Charter Gas Engine Company of Sterling, Ill., write us: "We are still far behind our orders, and have shipped this month and have orders for 'Charters' to go to points in Wisconsin, Minnesota, Iowa, Kansas, Missouri, Pennsylvania, Indiana, Washington and about half dozen points in Illinois.

Borden, Selleck & Co. of Chicago, have been receiving numerous orders for the Harrison Conveyor. Among the important ones are the St. Paul & Kansas City Grain Company, for ear corn, elevators at Perry and Persia, Iowa; T. J. Aterburn, Mattoon, Ill., for grain; Messrs. Schlosser & Co., maltsters at Hamilton, Ohio. Chas Epps, Chicago, has lately repaired his Harrison Conveyor, which was put in about seven years ago, and although at

that time the conveyor was manufactured in a crude way, it had rendered good service, and now will do better work than ever.

A device which has attracted much attention at Des Moines, Iowa, is called Kidd's Portable Grain Dump and Elevator. This is said to be the only successful machine that takes ear corn, potatoes, as well as small grain, from wagons into cars, cribs or bins, and from bins into cars; and it is claimed that small grain can be handled faster than by horse power or country steam elevator, which would cost double the amount. His wooden machine has taken a load of oats from the wagon to the car in one minute and forty seconds from the time the horses stepped on the machine until the oats were all in the car.

UNIFORM INSPECTION NOT PRACTICABLE.

Although Congress has adjourned it will soon convene again, and the uniform grain inspection bill, which was crowded out at the last session, will probably be passed, as it has many friends in both houses. A *Tribune* reporter recently interviewed several grain shippers and receivers on the Chicago Board of Trade in regard to Funston's bill establishing national grades, and each opposed it.

William H. Harper, treasurer Chicago and Pacific Elevator Company, said: The establishment of a system of uniform inspection would be attended with many difficulties. There are so many grades of wheat, for example, in the different markets of the country. The quality of the wheat varies with the soil. Only a small part raised in the United States comes to this market. St. Louis handles winter wheat exclusively, while we have both spring and winter wheat. Minneapolis has a wheat somewhat different. The California wheat is a good deal more different from any of these varieties, and in Washington there is a kind different from any of these. These are some of the difficulties in the way of uniform inspection. It might not be a bad thing, though, to pass this law and try it—it will do no harm, though, as I have said, it might be difficult to enforce such a law.

Charles Counselman said: It can't be done. We have a rigid inspection here. It's a foolish attempt to regulate trade that regulates itself, and I am surprised that Congress should devote its valuable time to such a purpose. It may become a law—the present House is liable to do almost anything.

Joseph Rosenbaum of Rosenbaum Bros., said: I haven't had time to see the bill. From my experience in the grain trade I should say that such a scheme is wholly impracticable. There are so many grades of grain that the classification cannot well be made uniform.

W. T. Baker, president Board of Trade, said: I think it's all humbug. Congress ought to be in better business. It can't legislate to control the course of trade where it would regulate itself. We have a rigid inspection in Chicago—the best anywhere in the country.

William Dunn of William Dunn & Co., said: I don't think a uniform inspection at all feasible by reason of the varieties of wheat raised in different parts of the country. The country tributary to St. Louis raises only winter wheat. Chicago handles both winter and spring wheat. Minneapolis mostly spring wheat. Values depend largely upon the part of the country where it is grown. For instance, Minnesota and Dakota hard wheats are the most valuable of all grown in the United States. A uniform inspection could only be useful if there was no difference in value when graded to a certain standard. By adopting uniform inspection in corn great harm would be done the Western market, as damp corn which is safe to carry in winter because of the temperature would rot with summer heat. It is usual for corn to accumulate in Chicago during the winter and spring to be shipped out on the opening of navigation in May, and if graded on the basis of New York and Baltimore winter inspections would, as I say, rot during May and June and arrive at seaboard as black as your hat.

Rates by lake and rail were advanced Oct. 1 by the Northwest roads on grain, flour and mill stuffs to New York, Boston, Philadelphia, Baltimore, Albany and Utica.

A grain dealer buys and sells his grain fifty-two weeks a year; that is labor. Now and then a farmer sells him stones for grain; that is swindling. Once in a long while he makes a profit on a shipment; that is capital. Then once a year he subscribes for the *AMERICAN ELEVATOR AND GRAIN TRADE*; that is wisdom.

Queries and Replies.

Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column.

No. 29. Belts on High Side of Pulley.—I would like some of the readers of the *AMERICAN ELEVATOR AND GRAIN TRADE* to inform me why a belt keeps to the high side of a pulley? I have been asked the question, but could not answer it. It seems natural for a belt to go to the shallow side of a pulley.

No. 30. Dockage for Shrinkage.—Will you please inform me through the columns of the *AMERICAN ELEVATOR AND GRAIN TRADE* how much is usually deducted from a carload of grain received at a terminal elevator to allow for future shrinkage? Are all grains docked the same? Is each carload docked the same, or do the elevator men aim to take a certain percentage of each load? If so, what is the percentage taken? Does dockage at different points vary much?—*WESTERN SHIPPER.*

No. 31. Rosin on Belts.—In replying to Query No. 21, I would suggest that "Subscriber" take a shot-gun and exterminate all employees using rosin on his belts. If he will keep his belts at the proper tension he will have no trouble with his belts, if they are doing anything like the work for which they were intended. Rosin, or anything else, fills up the pores of the leather, consequently they will slip. If he cannot keep dust from the belts, a little beef tallow will answer his purpose if his belts persist in slipping after a good cleaning off of the rosin.—*U. B. BELTED.*

No. 32. Information Regarding Wheat Cleaner.—I expect to put up an elevator at some point in Michigan and I would like your opinion in regard to the best wheat cleaner on the market. What capacity of machine would I want for a 5,000-bushel elevator. I owned an elevator in Michigan and experienced any amount of trouble in buying dirty grain, and now when I build I shall put in a cleaner and have the farmer unload into the cleaner and weigh his grain after being cleaned. I want as small a machine as possible, and at the same time one that will clean as fast as he can unload. All grain in that state is marketed in bags, and in unloading it would take about a half hour to dump sixty bushels. By answering you will greatly oblige.—*M. G. EWER, Belmont, Wash.*

OCTOBER CROP REPORT.

The October estimate of yield per acre for the entire breadth of cereal crops, as consolidated by the Department of Agriculture, are: Winter wheat, 10.8 bushels per acre; spring wheat, 11.5; the wheat crop, 11.1; oats, 19.8; barley, 21; rye, 11.8 bushels.

The condition of corn is 70.6, instead of 70.1 last month; buckwheat 90.7, instead of 90.5; potatoes 61.7, instead of 65.7; tobacco 85.4, instead of 82.4. There is practically no change in the general average of condition, except a reduction of four points in potatoes, and an increase of two points in tobacco.

The effect of winter frosts upon wheat is shown by the low rate of yield to have been severe. The figure would have been lower but for the reduction of area by plowing and planting of the worst fields in other crops.

Some of the higher rates of principal states: New York, 15.2; Pennsylvania, 12; Ohio, 12.5; Michigan, 15.2; Illinois, 11.5; Missouri, 11.2; Kansas, 13.5; California, 12; Oregon, 15.

The crop made a very low yield throughout the South, where the acreage is small. In the Ohio Valley the variation in yield, in different counties, as on farms in the same county, has an extraordinary range from 5 to 25 bushels, and in extreme cases from 1 to 30 bushels. One county in Illinois, claims the "best crop in years," and another "a poorer crop than was expected." Soils in good condition, that had thorough tillage, made the best yields.

The Rocky Mountain areas made high averages in spring wheat, on limited areas. The Dakota yield, varying from a bushel or two to 25 bushels make an average of 9 bushels per acre. Minnesota returns 12 and Wisconsin 12.5 bushels. The estimated yield of oats is 19.8 bushels, which is the lowest ever reported, probably reducing the aggregate product more than 200,000,000 bushels.

Fires, Casualties, Etc.

W. T. Allen, grain dealer at Lawrence Station, N. J., is dead.

J. M. Phillips, grain dealer at Mercersburg, Pa., died Sept. 15.

Prairie fires have destroyed much wheat near Lawrence, N. Dak.

A large quantity of hay has been burned at Constableville, N. Y.

Charles H. Bidwell, grain and hay dealer at Rochester, N. Y., is dead.

G. N. Walker of G. N. Walker & Co., grain dealers at Peoria, Ill., is dead.

A grain elevator at Leavenworth, Kan., has been burned. Loss \$10,000.

R. W. Major & Co., grain dealers at Windsor, Mo., have sustained loss by fire.

Charles T. Howe, grain dealer of Minneapolis, Minn., died at Columbus, Ohio, Sept. 10.

Fire destroyed a large amount of oats, corn, oilmeal and hay at Shaller, Iowa, on Oct. 2.

F. Blattner's elevator at Wellsville, Mo., has been burned. Loss \$5,000; no insurance.

Wm. Green's grain elevator at Carlisle, Ohio, was burned Sept. 3. Loss \$6,000; fully insured.

Large amounts of wheat, oats and hay have been destroyed by prairie fires near Gladstone, N. Dak.

Frank J. R. Niple's brewery at Stillwater, Minn., has been burned. Loss \$3,000; insurance only \$500.

The Kobetz brewery at Wilber, Neb., has been destroyed by fire. Loss \$20,000; insurance \$6,000.

The grain elevator of the Greenway brewery at Syracuse, N. Y., has been damaged by fire. Loss \$250.

The residence of S. J. Brown, grain dealer at Liberty, Neb., was slightly damaged by fire Sept. 9. Loss \$50.

The Kern Brewing Company's malt house at Port Huron, Mich., has been damaged by fire. Loss \$10,000; fully insured.

The Winfield, Iowa, elevator and mill burned Sept. 18, together with 2,000 bushels of grain. Loss \$10,000; insurance \$7,000.

The elevator connected with D. C. Heath's oatmeal mill at Des Moines, Iowa, was partly destroyed by fire Oct. 4. Loss \$40,000.

Ole Wilson, employed on the elevator of the Aberdeen, S. Dak., roller mill, was seriously injured recently by a fall from the building.

The side of the Union elevator at Terre Haute, Ind., gave way Sept. 24, letting 10,000 bushels of grain run out. The loss is heavy.

John Purdy, employed by F. A. Fisher & Co. in building on elevator at Sioux Falls, S. Dak., had his leg broken and otherwise injured by a fall Sept. 27.

J. D. Greenas of Fargo, S. Dak., lost 1,000 bushels of barley, 2,000 bushels of oats, and 5,000 bushels of wheat, valued at \$6,000, by the burning of a barn Sept. 26, in Clay county, Minn.

The grain elevator of Israel's Linseed Oil Works at Mt. Vernon, Ohio, was damaged by fire Sept. 19. Five thousand bushels of wheat were damaged. Loss on building \$2,000; fully insured.

Louis Miller, of Tate, Miller & Co., grain exporters at Baltimore, was recently accidentally shot in his right arm while in a boat, fishing with a party of friends. The wound is not dangerous.

Jacob I. Radcliffe, who had been connected with the Brooklyn Warehousing Company at Brooklyn, N. Y., for twenty years, died Sept. 9, at Thomasville, Ga. He was thirty-five years of age, and leaves a widow and one child.

The grain warehouse of the Fresno, Cal., Mill Company was burned Sept. 14. The warehouse and contents were completely destroyed. Loss on building \$3,000; insurance \$4,500. Loss on wheat stored \$90,000; insurance \$60,000.

William R. Miller, the grain and flour merchant of Montgomery, Minn., went violently insane the second time, while doing business at Fort Dodge, Iowa, and was committed to the St. Peter Insane Asylum. He was taken insane about a month ago, and spent a few weeks in the Rochester Asylum, and it was supposed he had fully recovered.

Asa Dow, ex-president of the Chicago Board of Trade, died Sept. 24, aged 87 years. Asa Dow was born in Hopkinton, N. H., and came to Chicago in 1858. Mr. Dow went to California at the time of the gold fever; coming back he spent four years in the grain business in Michi-

gan. He next went to Joliet, Ill., and after spending three years in the grain business at that place he came to Chicago. He was connected with the firms of Dow, Hurd & Co., Dow, Quirk & Co., and B. F. Murphy & Co. He conducted his business without a partner from 1873 to 1887, when he retired. He was married to Miss Cochran of Boston in 1868, and leaves a widow, son and daughter.

LATE PATENTS.

Issued on September 16, 1890.

HAY PRESS.—James E. Sanders, Dalton, Ga., assignor to the Georgia Hay Press Company, same place. (No model.) No. 436,725. Serial No. 328,711. Filed Oct. 30, 1889.

DRIVE CHAIN.—Charles W. Miller, Columbus, Ohio, assignor to Joseph A. Jeffrey, same place. (No model.) No. 436,608. Serial No. 349,130. Filed April 23, 1890.

GRAIN ELEVATOR.—Horace M. Fulwider, Redmon, assignor of one-fourth to Jacob McVay, Borton, Ill. (No model.) No. 436,348. Serial No. 295,399. Filed Jan. 4, 1889.

GRAIN REGISTERING AND LOADING ATTACHMENT.—Alonzo J. Miller, Oneida, Ill. (No model.) No. 436,585. Serial No. 189,826. Filed Jan. 26, 1888.

DEVICE FOR OPERATING THE SHAKING SHOES OF GRAIN SCOURERS, ETC.—William W. Huntley, Silver Creek, N. Y., assignor by mesne assignments to Huntley, Cranson & Hammond, same place. (No model.) No. 436,581. Serial No. 275,935. Filed June 4, 1888.

Issued on September 23, 1890.

BALING PRESS.—Henry Kile, Marshall, Ill. (No model.) No. 437,120. Serial No. 316,806. Filed July 8, 1889.

HAY PRESS.—Olivier F. Dubois, Turtle Lake, Wis., assignor of one-half to John F. Bunker, same place. (No model.) No. 437,146. Serial No. 334,663. Filed Dec. 23, 1889.

GRAIN MEASURING DEVICE.—Michael Cashin, New York, N. Y. (No model.) No. 437,093. Serial No. 335,499. Filed Dec. 31, 1889.

GRAIN CAR DOOR.—Charles H. Emery, Chicago, Ill. (No model.) No. 437,147. Serial No. 350,106. Filed April 30, 1890.

SPLIT PULLEY.—Henry C. Lewis, Saginaw, Mich., assignor to himself and John F. Barrows, same place. (No model.) No. 437,135. Serial No. 322,504. Filed Aug. 31, 1889.

AUTOMATIC GRAIN WEIGHING SCALES.—James H. Gunder and William H. Pierce, Tolono, Ill. (No model.) No. 436,854. Serial No. 347,630. Filed April 12, 1890.

Issued on September 30, 1890.

BALING PRESS.—William S. Reeder, St. Louis, Mo., assignor to the Kingsland & Douglas Manufacturing Company, same place. (No model.) No. 437,242. Serial No. 323,870. Filed Sept. 13, 1890.

BALING PRESS.—George W. Soule, Meridian, Miss. (No model.) No. 437,257. Serial No. 287,816. Filed Oct. 11, 1888.

ENDLESS CONVEYOR.—John H. Otten, Milwaukee, Wis. (No model.) No. 437,506. Serial No. 359,913. Filed July 25, 1890.

HAY PRESS.—Charles O. Newton, Homer, N. Y. (No model.) No. 437,404. Serial No. 328,475. Filed Oct. 28, 1889.

HAY PRESS.—John F. Smith, Brownwood, Tex. (No model.) No. 437,524. Serial No. 352,476. Filed May 20, 1890.

Issued on October 7, 1890.

DRIVE CHAIN.—Charles A. Case, New York, N. Y. (No model.) No. 437,978. Serial No. 353,990. Filed June 2, 1890.

CONVEYOR.—Amable B. Bonneville, Allentown, Pa. (No model.) No. 438,054. Serial No. 335,159. Filed Dec. 17, 1889.

GRAIN ADJUSTER.—George H. Flint, Lodi, Wis., assignor of one half to Otto Hayen Hinrichs, Jr., same place. (No model.) No. 438,129. Serial No. 355,117. Filed June 12, 1890.

GRAIN CLEANER ATTACHMENT.—John Grider, La Grange, Cal. (No model.) No. 437,891. Serial No. 349,938. Filed April 29, 1890.

Sinbad telegraphed Munchausen that the frost in Southern Dakota froze all the strings on the wheat bags so severely that they all dropped off when the sun struck them this morning. The late dispatches from Pillsbury and Vandusen firmly confirmed Sinbad's statements, and added that many of the bags were badly injured by the freezing.

THE EXCHANGES.

The corner-stone of the new Boston Chamber of Commerce was laid Oct. 6.

Tickets of membership to the New York Produce Exchange have been steady at \$700.

Wm. T. Baker, president of the Chicago Board of Trade, says that there is no curb trading in Chicago.

Nine certificates of membership in the New York Produce Exchange were sold at auction recently. The prices obtained ranged from \$735 to \$780.

The New York Produce Exchange will not extend the hours of trading to 3:30 P. M., since Chicago will not trade earlier than 9:30 A. M., or later than 1:15 P. M.

The Chicago broker who tried to rald the market by offering 100,000 bushels of wheat at \$1 when \$1.00½ was bid, was suspended from the Board by the directors for one week.

Some members of the New York Produce Exchange are making another sporadic attempt to stop trading on the "curb." The Grain Commission Merchants' Protective Association of New York has passed resolutions recommending that penalties be imposed on such trading.

Secretary Stone of the Chicago Board of Trade has announced that the directors would make a vigorous effort to stop trading before or after the regular hours. C. B. Congdon, W. C. Comstock and W. F. Booth have been appointed a committee to obtain signatures to a pledge by the members of the Board of Trade not to trade at irregular hours.

The story started here that the Board of Trade is discussing the advisability of throwing the quotations "wide open" is emphatically denied. A leading official says: "Business on the Board of Trade has never been so good since we moved to our present quarters as since quotations were discontinued, and the directory is absolutely unanimous in favor of our present policy."—Chicago Trade Bulletin.

If the "present policy" (of the Chicago Board of Trade) was designed to suppress bucket shops, it has been a miserable failure. Where are they suppressed? If it was intended to increase the cost and uncertainty to other exchanges, of procuring Chicago quotations, and adding 50 per cent. to the revenue of that very liberal but impecunious Western Union Telegraph Company, it has been a howling success.—Toledo Market Report.

The Minneapolis Chamber of Commerce, at its annual election held recently, elected the following officers for the ensuing year: President, F. L. Greenleaf; vice-president, F. C. Pillsbury; secretary, C. C. Sturtevant; treasurer, H. H. Thayer; directors, C. W. Moore, Wm. Griffiths, F. R. Pettit, A. J. Sawyer and A. C. Loring; board of arbitration, C. J. Martin, L. R. Brooks; board of appeals, J. F. Bassett, Wm. Pettit and E. R. Barber.

The Baltimore Corn and Flour Exchange has accepted the resignation of President E. C. Heald, who made an assignment and insisted upon resigning. Mr. Blanchard Randall of Gill & Fisher was elected president to serve out Heald's unexpired term; Robert M. Wylie of Wylie, Smith & Co. first, and P. H. Macgill of Gambrell Manufacturing Company second vice-president. The new head of the Exchange is probably the youngest who ever took the helm.

The Detroit Board of Trade recently voted to amend the rules so that a carload of grain for present delivery, or carrier, shall consist of an ordinary receipt of any of the railway elevators for 500 bushels, except that a carload of oats shall contain 1,000 bushels, or 32,000 pounds. Any greater or less amount, or any sales of receipts from private elevators, must be specified at the time of sale. Five hundred bushels of wheat, corn, barley, or rye, and 1,000 bushels of oats when sold for future delivery, shall constitute a carload of grain, and shall be the basis of settlement.

Some time ago Elevator "A" at Milwaukee was leased by F. Kraus & Co. The directors of the Chamber of Commerce do not approve of regular elevators being operated by firms doing a mixing business, so recommended the passage of the following resolution: WHEREAS, It has come to the knowledge of this body that the elevator known as St. Paul "A" has been leased by a private firm, which is known to be engaged in buying grain and storing it in said elevator for the purpose of cleaning or mixing the same; and, WHEREAS, This body regards it as inexpedient to recognize as regular any elevator of which the proprietors, lessees or managers, or their agents, are engaged in buying grain on track and storing the same in such elevator with the intent or for the purpose of cleaning or mixing said grain; therefore, Resolved, That the elevator heretofore known as Chicago, Milwaukee & St. Paul Railway Company's Elevator "A" be declared irregular, and that receipts for grain stored in said elevator shall not be deliverable on contracts.

THE AMERICAN ELEVATOR AND GRAIN TRADE.

— PUBLISHED ON THE FIFTEENTH OF EACH MONTH BY —

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HARLEY B. MITCHELL, - - - Editor.

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., OCTOBER 15, 1890.

NATIONAL TRANSPORTATION ASSOCIATION.

The attempted enforcement of the uniform bill of lading, and the success of the organized movement of shippers against it, convinced many prominent shippers that there was a crying need for a national association of shippers, and that it could be of vast benefit to them if well organized; so the different commercial exchanges of the country were asked to send representatives to Chicago for the purpose of organizing the National Transportation Association.

Articles of agreement were adopted, and it was decided that the officers shall consist of president, vice-president, secretary, and treasurer, and an executive committee of five members, the officers and the committee to be elected at each annual meeting. All business is to be done by the secretary, under the supervision of the executive committee. The regular quarterly meetings of the association were set for the third Wednesday of February, May, August and November. Permanent officers are as follows: R. C. Grier of the Peoria Board of Trade, president; A. J. Valandingham of the Kansas City Transportation Bureau, vice-president; secretary, George F. Stone of the Chicago Board of Trade; F. N. Magdeburg of the Milwaukee Chamber of Commerce, treasurer.

The association has a large field in which to work, and the more interests that are represented among its members the greater will be its influence. Millers are represented by an officer of one of their associations, but country grain shippers are not. Every association of country grain merchants should have a representative. Those of the city are represented through their exchange.

Among the first things the association will try to secure will be a satisfactory uniform bill of lading. The uniform classification of freight will also be considered soon. The New York Board of Trade, as well as the Central Traffic Association, has drawn up a uniform classification. The classification prepared by the traffic managers will bring about an increase in the rate on a number

of things, but this will be strenuously opposed by shippers.

Uniform rules covering the demurrage question should also be prepared and enforced. Railroad companies should pay just as much for delaying the shipment of goods and for detaining shipments along the way as shippers pay for detaining cars after the period granted for loading and unloading. If any are to pay for causing a delay in the business of others, all should.

We should also have uniform rules governing the distribution of cars. Shippers should be given cars in proportion to their wants, and not be divided equally among shippers, as the granger laws of some states provide.

Grain shippers should be given clean bills of lading instead of a receipt for a car "said to contain" so much grain. Railroad companies should also be obliged to deliver every pound of grain received. Grain constitutes about two-thirds of the freight traffic of the Western roads, and one-third of the Eastern, so they can well afford to provide better facilities for carrying it.

ADVANCE OF SILVER.

Russia has not been exporting as much wheat of late as is usual at this time of the year, although it is reported that a good crop was harvested. This is owing to the advance value of the rouble, which has advanced about 12 cents since last spring. The exchange value of the Indian rupee has also advanced, and Austro-Hungary is experiencing some trouble. All this has been caused by the silver legislation of the United States, which has caused an advance in silver.

The exporters of every country which has been using silver money the standard of which was established before silver was demonetized by the United States and several countries in the western part of Europe, which caused a depreciation in the value of silver, have had a great advantage over the exporters of the countries having the gold standard.

The AMERICAN ELEVATOR AND GRAIN TRADE has always held that our grain, cotton and other products should be relieved of this disadvantageous competition in foreign markets, and we are pleased to note the effect of the first step in this direction. May the disadvantage be entirely wiped out.

VISIBLE AND INVISIBLE.

We give elsewhere in this issue the opinions of some of the most prominent writers in the commercial world, on the official weekly reports of the stocks of grain in regular warehouses. For some time it has been generally admitted that the report is of no value whatever. So many elevators which were formerly operated as regular houses, are now irregular, that the visible supply report has lost its value for making comparisons with former years.

For some time the amount of wheat in the private elevators at Minneapolis has exceeded that in the public houses, and it is as bad at some other points, so the report as now compiled is very misleading. Recently several elevators have been transferred from the regular to the irregular list, causing a decrease in the visible supply, when in reality there was an increase in the available stock of wheat.

The apparent decrease did not worry in the least those who were posted, but dealers who read of the decrease without being aware of the cause were somewhat alarmed.

The AMERICAN ELEVATOR AND GRAIN TRADE has always maintained, and still does maintain, that the weekly visible supply report should be accompanied by a supplemental report giving the stocks of grain in private elevators, and whenever an elevator is transferred from the regular to the irregular list, it should be so stated in the weekly report.

If we are to estimate the value of the exchanges by the work they do in advancing the interests of the commercial world, then in the matter of reports of grain stocks we must con-

sider them befogged old fogies, as antique as the reports they send out. It is within the power of the commercial exchanges at grain centers to make the reports of grain stocks of much more value to the trade than they are at present, and there is no good reason why they should not do so.

EXTERMINATION OF MIDDLEMEN.

Of late many of the farmers' organizations have done just as many of their predecessors have done—decided to do away with the middlemen. The blow is aimed principally at the grain and stock buyers and the retail merchants at country points.

Although farmers have successfully operated grain elevators and stores on the co-operative plan at a few points, they have never succeeded in doing away with the middleman. The man they place in charge of their elevator or their store is the middleman. It takes just so many to carry on the trade of this country, and inexperienced farmers cannot carry it on with any less number than men who have devoted their life to one branch of trade, are now doing.

Grain dealers who have been buying, handling and shipping grain for years, and have their capital at stake, will surely give more thought and care to the economical handling of grain than will a salaried employe of the farmers. Competition compels every dealer to operate as cheaply as he can, and do it right. He will surely not employ any more help than is absolutely necessary to carry on the business, so the farmers will be unable to do away with the middlemen. Few of the co-operative ventures of the farmers prove successful, and one would naturally conclude that they would stop risking their capital and interests in the hands of a cheap and usually inexperienced employe.

In these days of great competition and small profits the honest middleman deserves every cent he makes, and more, too. The howling demagogues and farmer agitators would have the grain producers believe all middlemen dishonest. Salaried employes will never manage a grain elevator, a mill or a store as economically, as carefully, as thoughtfully, as conscientiously or as honestly as the man who has his capital at stake, and who must rely entirely on profits secured against the sharpest competition for his remuneration.

BUFFALO'S ELEVATOR POOL.

At last the bleeding combination at Buffalo known as the Storage and Transfer Elevator Association has refused to take in a new member, and the prospects are that some grain will be transferred at something below the robber rates charged by the pool.

R. R. Hefford has erected an elevator for transferring coal from lake vessels to canalboats, but owing to high freights on other merchandise, the canalboats have not been taking coal. Mr. Hefford not caring to have his elevator idle has started to transferring grain from lake vessels to canalboats. It is said that although his elevator is not equipped for handling grain, it readily lifts 10,000 to 12,000 bushels per hour from a small vessel, and he is only charging one-half cent per bushel for transferring, while the association, which includes all the elevators, charges seven-eighths of a cent. The state law prohibits the charging of more than five-eighths of a cent per bushel for the transferring of grain, but the pool gets around this by refusing to transfer any grain unless allowed one-fourth of a cent for storage, whether it is immediately shipped out or is held in the house ten days.

The association was asked to admit Hefford to the combine but refused. He may make the association some trouble, but it is not likely he will be admitted to membership this year, as the capacity of his transfer is not great, and the season of navigation will soon close. This may lead to the enlargement of his house and a fight next spring. Many idle storage and transfer elevators are already drawing dividends from the association, so the members are strongly opposed to taking in another. Western shippers will hail

with joy any move that bids fair to suspend even for a short time the exorbitant transfer rates charged by the Buffalo combine. Shippers will do well to encourage Mr. Hefford in his fight with the pool, and give him enough grain to transfer to keep his elevator running night and day.

GRAIN RATES.

During the last few months grain rates have been continually discussed by railroad companies and grain shippers. The Inter-State Commerce Commission, after ordering a reduction in rates on grain from the Missouri River points east several times, finally succeeded in having a reduction made Oct. 1. The Rock Island and the Alton had intended to reduce rates one cent more per hundred than had been ordered by the Commission, but it is now reported that no road has made a greater reduction than was ordered.

The Rock Island also tried to bring about the reduction in grain rates ordered west of the Missouri River on Oct. 1, but the association rules prevented and the reduction was postponed until Oct. 17, when all of the lines will make the ordered reduction.

While the Western roads are making reductions in grain rates the Eastern roads are accusing one another of cutting under schedule rates, and at a recent meeting in New York of the Trunk Lines Association it was the opinion of those present that in view of the fact that lake navigation would soon close rates on east-bound freight should be advanced and cutting of tariffs on grain should stop.

After an animated discussion it was finally decided to let the question of increased rates remain unsettled and invite the Western roads, affected by the order of the Inter-State Commerce Commission, to confer at some future meeting. Rates on the Western roads are not likely to be advanced, for the Rock Island has shown a determination from the start to observe the order of the Commission, and if one road obeys the order all must, or allow the road obeying to carry the bulk of the grain. Neither is it probable that an advance will be made in the rate on grain over the trunk lines, for one or two of the Eastern roads and the Inter-State Commerce Commission will oppose it.

INDEFINITE TRADE TERMS.

The difference of opinion as to the meaning of different terms commonly used by shippers has caused some of the commercial exchanges to decide what the terms should mean, and the republication of the rules of other exchanges bearing on the point. The Merchants' Exchange of Buffalo has decided that "prompt shipment" should mean not over ten days, and that "immediate shipment" should mean not over five days in the shipment of grain when sold "c. i. f." without any time being specified.

According to the Baltimore Corn and Flour Exchange, the term "immediate shipment" is understood to mean shipment within three days, Sundays and holidays excepted, and "prompt shipment" is held to mean shipment within ten days. When merchandise is sold "to arrive" by sample or by description for "track delivery," the seller is bound to deliver the goods unless otherwise agreed or he is released by the purchaser. The Dominion millers have also felt the necessity of having certain trade phrases exactly defined, and at their recent meeting passed a resolution stating how they desired them to be interpreted, and requesting the boards of trade of the Dominion to confer for the codification of more definite trade terms.

The lack of exactness in trade terms has long been a source of much trouble. Many have had to suffer on account of buying grain of dealers who were not backward in taking advantage of the indefiniteness of the trade phrases, and would delay the fulfillment of contract according as the greater profit would accrue to themselves. The purchasers of course are to blame for permitting terms of indefinite meaning

to be placed in their contracts. It will be much better, however, to have some general understanding as to the exact meaning of the terms than to discard them.

In buying wheat by the "carload" when the market is rising, purchasers frequently receive a car only half or three-quarters full, but when the market is falling their "carload" weighs 5,000 or 10,000 pounds more than the average carload. To prevent such unjust treatment of buyers by sellers some of the commercial exchanges have decided how many pounds shall constitute a carload of grain in deals where their members are interested and the amount is not specified in contract. The Dominion Millers' Association has recently decided that 500 bushels shall constitute a carload of wheat, allowing 5 per cent. margin either way. The Detroit Board of Trade has been asked to amend its rules so that a carload of grain shall consist of 500 bushels, except in the case of oats. There should be a national rule fixing the amount of grain and flour which shall constitute a carload in cases where no amount is stipulated in contract. The National Transportation Association probably could handle this matter better than any other organization.

IMPORTS FROM CANADA.

For some time preceding the 6th instant, the day the new tariff bill went into effect, there was a great rush of Canadian grain, seeds, peas, apples and eggs to this country. Barley was the principal cereal shipped in, and it is estimated that fully one-half of the Canadian crop, which was a light one, was exported before the new tariff law went into effect. The receipts at Oswego for the thirty-five days preceding Oct. 6 amounted to 1,800,000 bushels, and at one time there were twenty-six vessels in that harbor loaded with barley, waiting to be unloaded, and as soon as they were unloaded they were off for the Canadian ports where cargoes awaited them at 3 to 3½ cents a bushel.

During the week ending Oct. 4 nearly 1,000,000 bushels were received at Buffalo, more than is usually received in a month. Warehouses were crowded and vessel room was scarce. Dealers at both American and Canadian ports on the Eastern lakes were rushed until the law went into effect, then business fell flat, prices declined in Canada, and the farmers stopped marketing the remainder of their crop. It is to be hoped, now that Canadian farm products are shut out of our markets, the farmers will stop howling about the depression, stagnation and approaching ruin long enough to grow products to take the place of the Canadian.

THE NEW TARIFF LAW.

Now that the much discussed McKinley Bill has become a law, it may interest our readers to know what changes were made in the import duty on breadstuffs. The following table shows the old and the new rate:

	OLD RATE.	NEW RATE
Barley, per bushel.....	10c.	30c.
Barley malt, per bushel.....	20c.	45c.
Barley, pearled, patent or hulled... ½c.		2c.
Buckwheat, per bushel.....	10 per ct.	15c.
Corn or maize, per bushel.....	10c.	15c.
Cornmeal, per bushel.....	10c.	20c.
Macaroni, vermicelli, per pound....	Free.	2c.
Oats, per bushel.....	10c.	15c.
Oatmeal, per pound.....	½c.	1c.
Rice, cleaned, per pound.....	2½c.	2c.
" uncleaned.....	1½c.	1¼c.
" poddy.....	1¼c.	¾c.
Rice flour, meal and broken.....	20 per ct.	¼c.
Rye, per bushel.....	10c.	10c.
Rye flour.....	¼c.	¼c.
Wheat, per bushel.....	20c.	25c.
Wheat flour.....	20 per ct.	25 per ct.

THE Buffalo Merchants' Exchange has recently refused to sustain the inspection of the inspectors at that port reducing the grade of wheat shipped from Duluth. Duluth weighers and inspectors seem to be a very incompetent set in the eyes of Buffalo officials.

WE acknowledge the receipt of the new catalogue of James Leffel & Co., Springfield, Ohio, and 110 Liberty street, New York, describing the steam engines and steel boilers, horizontal and vertical, made by this sterling firm.

NEBRASKA grain dealers seem very backward about expressing their opinions upon the proposed inspection and warehouse law. If you favor the law, say so, and give in our columns your brother dealers your reasons for wanting it. If you are opposed to it, do not be afraid to say so. Let us hear from you on this subject.

APPARENTLY many of the Board of Trade men and newspapers do not understand the provisions of the so-called "uniform grading bill." The idea of the impracticability of the Funston Bill arises from a misapprehension of its scope. It does not interfere with any other inspection. It is a bill to establish standard grades; not to abolish present inspection. There is nothing compulsory about it. Very likely it will become a law next session of Congress.

At a recent meeting of the Western Freight Association it was charged that the bulk of the grain east bound from Missouri River points was carried at cut rates and roundabout rebates. The representatives of some of the Eastern lines have been unable to secure any freight. One official claims that grain is being carried to Chicago at five cents below the schedule rate. Such a cut would naturally bring considerable grain to Chicago, for the difference would more than pay the winter storage on the grain, and Western dealers could have the use of their elevators.

THE Stilwell & Bierce Manufacturing Company of Dayton, Ohio, has brought suit in the United States Court against the S. M. Brown Company, who are using a Hoppes Live Steam Purifier. It is claimed that in using this purifier they are directly infringing the Stilwell Purifier patents owned by this company, who own all the Stilwell patents for heating and purifying feed water for steam boilers. The Stilwell & Bierce Manufacturing Company manufacture the well-known Stilwell Live Steam Purifier and the Stilwell Exhaust Heater. Having been engaged in this business for a number of years, they claim to be the oldest house in this line of business in this country.

THE Charter Gas Engine Company of Sterling, Ill., write us that it has kept them hustling to fill orders for the "Charter," and they have been forced to run nights. They have had to do this all this year, as they have not been able to get any stock, and in fact have lost some sales because of inability to fill orders in time. In one week last month they booked orders for four 20-horse power "Charters," to go to Nebraska, Illinois, Washington and South Dakota respectively. In the latter part of September orders were not received so frequently, and it looked as though they might get some stock ahead, but they have commenced to come in with a rush again, and the company is several weeks behind orders.

SHORTAGES never occur at Buffalo—that city at the head of Lake Erie, with the model elevator pool, model inspection, and model system of weighing grain—but reports of shortages get into the newspapers by mistake. Some time ago a steamer was reported as being libeled for being short the small sum of 5,000 bushels of wheat at Buffalo on a cargo of 81,000 bushels. Since then another cargo of wheat—41,000 bushels, from Duluth—was short 77 bushels. The Nyanza was short 280 bushels, and the Groton, with 8,000 bushels of wheat, from Detroit, was short 36 bushels. One cargo from Duluth recently over-ran 38 bushels. Reports that some cargoes over-run are not made for the purpose of placing the blame for shortages on the weighers at the port of shipment, as some people seem to think. The fact that the weighers at point of shipment and transfer cannot agree as to the weight of cargoes proves that something is wrong. The scales or the men need attention.

Grain Dealers' Associations.

KANSAS AND NEBRASKA GRAIN DEALERS' ELEVATOR ASSOCIATION.

President, MASON GREGG, Lincoln, Neb.; *Vice-President*, FRANK LOWER, Council Grove, Kan.; *Secretary*, W. T. CAYWOOD, Clifton, Kan.; *Treasurer*, O. A. COOPER, Humboldt, Neb.

GRAIN SHIPPERS' ASSOCIATION OF NORTH-WEST IOWA.

President, T. M. C. LOGAN, River Sioux; *Vice-President*, H. HANSON, Odebolt; *Secretary and Treasurer*, F. D. BABCOCK, Ida Grove; *Assistant Secretary*, F. G. BUTLER, Schaller.

Executive Committee, E. A. ABBOTT, Des Moines; J. Y. CAMPFIELD, Sac City, and T. M. CATHCART, Kingsley.

GRAIN DEALERS' ASSOCIATION OF OHIO.

President, J. W. McCORD, Columbus, Ohio; *Vice-President*, L. BOGGS, Kingston; *Secretary*, E. C. WAGNER, Columbus; *Treasurer*, D. McALLISTER, Columbus.

Board of Managers, C. D. MILLER, Newark; DILL WEIGAND, South Bloomfield; E. M. BENNETT, Jr., Urbana; C. W. PRINGLE, Lilly Chapel, and H. CHAMBERS, Worthington.

Legislative Committee, J. W. McCORD, D. McALLISTER, E. C. WAGNER, W. A. HARDESTY, and E. C. BEACHALL.

ILLINOIS GRAIN MERCHANTS' INSURANCE AND PROTECTIVE SOCIETY.

President, ISAAC VAN ORDSTRAND, Hawarden; *Secretary and General Manager*, S. K. MARSTON, Onarga; *Vice-President*, JOHN STEWART; *Treasurer*, G. C. McFADDEN, Havana.

Executive Committee, S. K. MARSTON, D. H. CURRY and F. M. PRATT.

Committee on Claims, D. M. BRUNER, J. F. ZAHN, H. C. MOWREY.

Committee on Legislation, W. ARMINGTON, V. R. ST. JOHN, C. C. ALDRICH.

Editorial Mention.

J. W. KILGOUR, a prominent grain dealer at Mt. Forest, Ont., made us a pleasant call recently.

Iowa's railroad commission is still trying to enforce the joint rates which it ordered to be put into effect July 1.

TERMINAL elevator men will confer a great favor by replying to the query of "Western Shipper" in this issue.

THE Morton Manufacturing Company of Romeo, Mich., have recently got out a new special catalogue which they will be pleased to send to all desiring copies.

THE Kansas City and Illinois Central roads have given notice that they accept and will adopt the joint rate prescribed by the Iowa Commissioners in that state.

CONGRESS has adjourned, and the Butterworth anti-option bill will rest in the archives at Washington until some congressman desires to make a bid for the farmer vote.

ALTHOUGH the crops of three leading cereals are less than last year, still there is no time like the present to subscribe for the AMERICAN ELEVATOR AND GRAIN TRADE.

MANY of our readers will regret to learn that J. S. Blackman of the old reliable grain commission firm of J. J. Blackman & Co., 37 Water St., New York, has been forced to retire from active business on account of ill health. The business will be continued by J. J. Blackman and G. W.

Gardiner, the style of the firm name remaining unchanged.

WHEN in the city, grain dealers should always make it a point to call at the office of the AMERICAN ELEVATOR AND GRAIN TRADE. We are always pleased to meet those connected with the trade.

THE H. J. Deal Specialty Company of Bucyrus, Ohio, are now manufacturing seed-testing scales for clover, flax and other small seeds, and will be pleased to answer any letters of inquiry concerning same.

If you desire any information in regard to the trade you are welcome to the use of our "Queries and Replies" department. We have it for your use; and should be pleased to have it used more than it has been.

INDIANAPOLIS receivers and shippers are organizing a freight bureau, by means of which they expect to secure just treatment at the hands of the railroads. Grain shippers should profit by the example of others, and organize.

THE meeting of the Illinois Grain Merchants' Protective Society, which was to have been held at Springfield, Oct. 7, was postponed to Oct. 14, so we are unable to publish any part of the proceedings. However, the association is doing a good work in the interest of its members.

NOT long ago a leaky car scattered over one hundred bushels of corn along the tracks of the Chicago & Northwestern Railroad Company in this city, but of course the company was in no way to blame, it was the shipper's fault, and he is entitled to no damages. This is the way the railroad company reasons.

SEELEY, SON & Co., elevator builders of Fremont, Neb., have erected twenty-eight elevators during the past seven months, at an average cost of about \$4,800. Their scale trade is larger than ever before; they have placed thirty hopper scales, thirty-two wagon scales and one 60,000-pound track scale during the past season.

THE time is now approaching when the farmer legislators will once again gather in the assembly halls of the different states and pass unconstitutional laws providing for the regulation of the elevators, grain buyers, and others connected with the trade. And as usual, they will pass more laws which are detrimental to their interests than are beneficial.

OUT of twenty-seven indictments brought in by the grand jury at Little Falls, Minn., recently, eleven are against parties connected with the robbery of the North Dakota Elevator at that place last spring, by the use of forged wheat checks. At the present rate that district will soon have to provide a special court to try persons who rob the elevator men.

THIS is the time of the year elevators become tired and drop their load. Several have already done so. If your house was not built by a reliable firm of elevator builders, be careful not to overload it. Few barn builders and country carpenters are competent to erect a strong elevator, and the arrangement of the interior of elevators made by them is, as a rule, very poor.

MISSOURI's warehouse commissioners decided against Peavey & Co., proprietors of the Union Pacific Elevator at Kansas City, in their refusal to receive grain inspected by Inspector Neal. Of course Peavey & Co. know nothing about grain, and never handled or even saw the "stuff," until politics pushed them into the business. Bull-headed politicians, who know nothing about grain and have had no experience in handling it, are not fit to inspect grain, and grain dealers

should organize and demand the appointment of competent officials. They are directly interested and should be consulted.

UNDOUBTEDLY some of the railroad managers would like to charge demurrage on grain before the car has arrived at its destination, but fortunately receivers will not submit to everything. At Baltimore the railroads have recently been forced to extend the time for unloading, and now six days is allowed for the unloading of hay and four for feed. Other extensions will probably be made soon.

CHARLES J. MURPHY, commissioner for the state of Nebraska, is doing a good work abroad in the interest of corn as human food. At the Edinburg International Exhibition he had an exhibition of Nebraska corn, and distributed free a book of 100 pages containing 130 formulas for the preparation of corn. Mr. Murphy is not receiving the support from this country that he deserves, but he is accomplishing a great deal as it is.

"COMMUNICATED." We have this department for the especial use of readers who may have something to say to the trade, yet we do not receive one per cent. of the number of communications we would like to receive. Do not be backward about writing. Give us your opinions, your experiences, and the grain news of your district. It will do you good to write them, and your brother dealers will be benefited by reading them.

PUBLIC elevator men at Milwaukee have followed in the footsteps of those at Chicago and made their storage rates lower than they intended. At present $\frac{3}{4}$ of a cent is charged for the first ten days, and $\frac{1}{2}$ of a cent for each succeeding ten days. A period of winter storage is also provided. It commences Dec. 1 and ends May 1. When 4 cents storage has accumulated against grain in store during this period, no further charge will be made until after May 1.

A MUTUAL fire insurance company is being organized at Minneapolis for the purpose of insuring elevators and flour mills. It will be known as the Western Millers' Mutual Fire Insurance Company, and will be ready for business the latter part of this month. Members will be given insurance at actual cost, and the management will aim to make it as low as possible. Ex-Gov. McGill, who at one time was insurance commissioner for Minnesota, will be president of the company.

ALTHOUGH there has not been as serious a shortage in grain cars in the Northwest as usual, still a number of complaints have been made to the North Dakota Railroad Commission regarding the distribution of cars and the movement of grain. To prevent discrimination and unjust treatment of shippers by the railroad companies, the Commission has prepared rules and regulations for the distribution of cars, and the Northern Pacific and the Great Northern have accepted them. If the rules are obeyed and discrimination prevented, they will prove a great boon to grain shippers and elevator men in the Northwest.

RECENTLY Eastern speculators traveled through several districts of Michigan and bought all the barley in the hands of the farmers at 15 cents a bushel below what the dealers in the neighboring towns were paying for it. The Des Moines correspondent of a local daily says: "Several weeks ago Eastern buyers went over this state purchasing entire crops of oats at one-half the market price of to-day. Now, Eastern buyers are gathering up the entire hay crop of Northwestern Iowa at \$3.50 to \$4 per ton, which is to be baled and shipped to Ohio and Illinois, where they have none." A few such experiences should teach the farmers at least, to give the dealers who provide a market for them the year round, a chance to bid upon their grain. Country dealers invariably pay all they can afford to pay. If this were not

so sharks and periodical speculators would go to the country markets to buy, and not to the homes of the unposted farmers.

THE invitations to the Sioux City Corn Palace were unique. They were made of *papier mache*, molded into the form of an ear of corn, and split longitudinally, the interior disclosing the printed invitation. The whole was gilded into resemblance to the "golden grain."

THE patent for an Electrical Indicator for Grain Bins is offered for sale in this issue by the patentees, Messrs. A. C. Thompson of Greeley Center, Greeley county, Neb., and H. E. Newton of Aurora, same state. The purpose of the invention is stated in the advertisement. Many practical men, both grain dealers and mechanics, have indorsed the device in the highest terms, and it would appear to offer a promising field to some manufacturer.

C. REUTHER & REISERT of Hannef, Germany, and 74 Cortlandt street, New York, write us that they sold over 410 "Chronos" Automatic Grain Scales during 1889, which represent a capacity on wheat of 208,333 bushels per hour, or a daily capacity of 5,000,000 bushels. American capitalists are now forming a syndicate to acquire the right for manufacturing the scales in this country. Since its introduction in this country the "Chronos" has been adopted in many prominent firms, notably Christian Bros. Company, Minneapolis; "Imperial Mill" and H. P. Gill, Duluth; Geo. Urban & Co., Buffalo, N. Y., and the Jersey City Milling Company of Jersey City, N. J. The National Starch Company of Glen Cove, N. Y., are using one of the scales to weigh 2,500 bushels of corn per hour.

It is to be regretted that the grain inspection department of Minnesota is open to the false charges of the political demagogues. We doubt if any inspection department gives better satisfaction than that of Minnesota. Actual shippers, dealers and others connected with the trade would be the first to complain if the inspection was not what it should be. Inspector Classen was appointed at the solicitation of the Minneapolis Chamber of Commerce and had years of experience in the handling of grain in that state. His appointment was not due to his political opinions. Grain dealers should be consulted when men are to be appointed to inspect their grain, and if their grain is not inspected satisfactorily they will appeal from the inspection in their own name and not make groundless charges in the name of some unknown person from an unknown place.

SOME time ago the Philadelphia Car Service Association decided to charge demurrage on all cars not unloaded within forty-eight hours after arrival. The hay and straw dealers asked for a longer time to unload, and then the grain receivers made the same request. In the Northwest grain shippers are unable to get cars until a number of days after they have applied for them, and frequently their grain is again delayed along the road. Some shipments have been delayed over a month, but of course, the shipper receives no recompense, although the market value of his grain may have depreciated during the delay. The demurrage question is not a one-sided question, as the railroad companies try to maintain. If they do not want grain, hay and straw left in their cars after arrival at destination, they should provide warehouses for storing the same as they do for other goods.

REPRESENTATIVES of several points in Manitoba and the Northwest Territories met at Winnipeg, on the morning of Oct. 1, to select grain standards for the ensuing crop year. There were 175 two-bushel-bags samples of grain, from at least 40 grain shipping stations, and representing the surrounding districts, practically covering Manitoba and territories. Standards for the following grades were fixed: Extra Manitoba hard; No. 1 hard; No. 2 hard; No. 3 hard; No. 2 Northern; No. 1 frosted and No. 2 frosted. No. 3 hard is

not an official standard, as no provision is made for such a grade in the law, but the examining board found that it would be necessary to establish such a grade. Owing to the fact that none of the grain examined met the requirements of No. 1 Northern that grade was omitted; however inspectors will give this grade to any wheat meeting the requirements of the law for this grade.

It is reported that elevator men in North Dakota, the state which has ten unconstitutional laws for the regulation of every branch of the grain trade, are not reporting the full capacity of their houses in paying the state license, which is based on capacity. The elevator men claim, and rightly, too, that they have so many grades to handle this year that it requires more space than usual, and they agree to pay the difference if they use more than the reported capacity for storing.

AN important change has been made in the elevator bucket trade. H. W. Caldwell & Son of this city now have control of the elevator bucket business of the Avery Stamping Company of Cleveland, taking the entire output of their factory, and acting as exclusive manufacturers' agents. To provide proper facilities for handling this great accession to their business, Messrs. Caldwell & Son have been compelled to enlarge their quarters, and they now have plenty of room at 127 to 133 W. Washington street, Chicago. Messrs. Caldwell & Son also do a general business as machinists, and have a very complete plant for this purpose. Some idea of the scope of their business may be had by glancing at their new advertisement in this issue. The constant increase of the business of the firm shows what conscientious work, fidelity and promptness can do with a good article of merchandise to start with.

DOTS AND DASHES.

On Oct. 17 rates west of the Missouri River will be reduced.

Kansas' corn crop is estimated at 50,000,000 bushels by the State Board of Agriculture.

The palace fair has opened at Forest City, Iowa. The palace is three stories high, built of flax and oats.

Twenty-five cars of wheat from the new state of Washington were sold in Milwaukee, recently at 95 cents.

A canal fifty miles in length, for irrigation and water power, will be constructed from Palisade to Culbertson, Neb.

A car of corn containing 70,400 pounds, or 1,256 bushels, was unloaded at the Armour Elevator, Chicago, recently.

A Harrison county (Mo.) man recently sold corn in the field at \$18 an acre that was raised on land that cost him \$15 an acre.

A New York coffee roaster recently purchased 1,100 bushels of rye. It is said he intends to roast coffee consumers with it.

The Standard Oil people are said to be manipulating the wheat market. This is against the grain, both as regards the grain and the public.

Reports from New York City state that coffee roasters are looking for rye, and will pay 75 cents for it. We are not informed whether that is by the pint, quart or gallon.

The gain of half a point in the condition of corn is equivalent to an increase of about 7,000,000 bushels in the indicated yield. The total crop is now estimated at 1,550,000,000 to 1,560,000,000 bushels.

A late cable says: "Owing to the rise in the rate of exchange, Russian exports of grain are at a standstill. October is generally the busiest month in this trade, and the existing state of affairs causes anxiety."

Hon. M. Mohler, secretary of the Kansas Board of Agriculture, reports as follows: "Our correspondents continue to report as threshing progresses, that wheat for the most part is yielding better than was expected, and the quality as excellent, indicating that the product reported a month ago—23,000,000 bushels—will be fully sustained. Oats and flax are yielding unusually well, and are profitable to the farmers. Potatoes are an extremely light crop. In many sections the condition has

improved, yet throughout the state the condition is reported at 30 per cent., ten points lower than a month ago."

The Ohio Agricultural Department reports the wheat crop of that state at 28,704,000 bushels, or 85 per cent. of a full crop; corn is 59 per cent. and potatoes 45 per cent. of a full crop.

It took five bushels of corn to get into a circus in Kansas last summer. This summer you can get into the main tent, stay to the concert, go to the side show, and get a picture of the Circassian beauty, all for one bushel.

The steamer Emily P. Weed left Milwaukee with 121,000 bushels of barley. It took three days to load her at one of Milwaukee's slow elevators. She would have carried 125,000 bushels could she have obtained them.

The visible supply of grain Saturday, Oct. 11, as compiled by the New York Produce Exchange, was as follows: Wheat, 17,739,029 bushels, increase 679,940; corn, 8,364,235, decrease 357,191; oats, 3,989,892, decrease 84,996; rye, 616,725, increase 32,570; barley, 4,189,039, increase 957,449.

The corn porters in the employ of the Allan and the Wilson-Hill lines of steamers at London, have again struck for "obligation" and "stench" money. They allege that they are justified in their demands by the bad quality and dirty condition of the grain they are compelled to handle.

During September 2,041 cars of winter wheat were inspected into store at Chicago, against 4,926 cars for the preceding September. Of that inspected last month 1,244 cars were No. 2, 598 No. 3, 137 No. 4, and 62 cars no grade, against 337 cars No. 2, 3,614 No. 3, 844 No. 4, and 131 cars no grade for September, 1889.

Samuel Hays of Prairie Creek township has had great success with his corn this year. He has brought a number of ears to this office and calls on corn raisers generally to see if they can beat them. One ear has 1,048 grains on it; another 1,042. Nearly all of them have over 1,000 grains.—*Gazette, Terre Haute, Ind.*

Reports from Minneapolis state that there is less wheat in country storehouses now than there was at this time last year. The farmers are in a mood to hold on to their grain for the higher prices that they expect later, and there is every reason to suppose they may distribute the marketing of it more evenly than common through the entire crop year.

Reports from the western half of Kansas state that an enormous amount of wheat is being sown there, and that farmers who had no means to buy seed wheat are borrowing money on personal property with which to purchase the same. During the past month the state has been visited with good rains every week, and the ground is in fine condition. The acreage of wheat in many counties is almost double that of any former year.

A St. Louis correspondent of Chicago *Daily Business* writes as follows: "From every side, without a single exception, I am advised that the acreage being plowed and seeded to wheat in Illinois, Indiana, Missouri and Kansas exceeds by at least 10 per cent. what was anticipated a month ago. The 'even dollar' wheat, the favorable conditions as to soil, and the naturally good prospects for a first-class start of the plant when sown now, with the weather we are having, induce the seeding of a large acreage."

Chairman Shaw of the Chicago Committee of the Central Traffic Association sent out an official circular to the members, in which he says: "The Northwestern Elevator, located on the tracks of the Chicago & Northwestern Road, has been declared irregular by the Board of Trade, and in future you will treat all shipments from said elevator the same as those from any other private elevator, allowing the switching charge of the Chicago & Northwestern Railway to follow as an advance charge in addition to the current tariff rate from Chicago."

Recent advices from Duluth state that the receipts of wheat have not been large so far on account of the steady wet weather in the Northwest; but that has now changed, and from this time forward wheat will come in steadily increasing quantities until the bulk of the fall movement is over. It is impossible to give anything like an accurate estimate of the movement; probably it will be about the same as that of last fall, when from 13,000,000 to 14,000,000 came in the last four months of the year. The large amount of low grade wheat may cut down the Duluth receipts and shipments somewhat, as these grades find a better market at Minneapolis.

IOWA'S HAY CROP.

Northwestern Iowa is to have another great boom from hay. The hay crop is now being raised at prices far below its actual worth. Iowa raised about the only good hay that has been raised in the Mississippi and Ohio valleys this year. Speculators are now roaming over Iowa and buying up hay at cheap prices. Farmers should hold their hay until they can receive its full value. Notwithstanding their experience in selling out the hay crop for less than half of its value, many of the same men are now selling their hay for little more than the cost of cutting and stacking. Iowa pastures are green and luxuriant and will be for six weeks or two months. Iowa is the veritable Egypt of the world, but still her farmers will sell their hay for half value and let speculators make money without labor. Iowa farmers are not doing well, but they do not read the daily papers regularly to keep posted on markets and prospective speculators. — *East Des Moines Register*.

IMPORTS OF BREADSTUFFS.

According to the Government statement of imports and exports for August, there was imported during the month breadstuffs valued at \$33,061. During August, 1899, \$34,400 worth of breadstuffs to the value of \$2,592,554 were imported during the eight months ending Aug. 31, 1899. During the same period of 1898 \$3,156,498 worth.

During the month of August, 1899, there were imported into the United States 42 bushels of oats, 137 bushels of corn, 2,455 bushels of wheat, 30,159 bushels of barley. During August, 1898, there were imported 165 bushels of oats, 1,000 bushels of corn, 180 bushels of wheat, and 40,390 bushels of barley. During the first eight months of this year there were imported 1,000 bushels of barley, 1,097 bushels of corn, 1,143 bushels of wheat, 132,743 bushels of oats, and 1,000 bushels of barley, against 5,054,285 bushels of oats, 1,143 bushels of corn, 11,388 bushels of wheat, and 1,000 bushels of barley during the same period of 1898.

WILL NOT AFFECT EXPORTS.

It is frequently stated that the effect of the increase of the price of grain in Russia and India. We have no doubt of the ultimate effect in that line, but we cannot forget that the price of grain everywhere is at the mercy of the market and he must take what he can get. Odessa and Bombay are the great export dealers at all other seaports, and they will pay for wheat at a price that will entail no loss, and the effect extends to the interior. The farmer must wait and wait awhile, but finally he will be paid. That is our theory on that question. There is no evidence of any other countries give no evidence of any other countries give no evidence of any other countries.

HOW TO SELL A SURPLUS.

A syndicate writer for a New York newspaper is moved to make the following observations:

Some people appear to think the best way to sell a surplus is to notify the world that the surplus is very large and must be sold at once. The railway officials, the world they are short of cars to haul the surplus. The combination and their allies that will not let the surplus be sold at a price that will not cover the cost of the surplus. Perhaps natural causes may reverse the seven years' custom. It has been said all surplus change every seven years.

GRAIN AT CHICAGO.

The receipts and shipments of grain at Chicago during September, compared with September, 1899, are given in the following table:

	Receipts.		Shipments.	
	1899.	1899.	1899.	1899.
Flour.....	250,000	421,000	287,500	415,000
Wheat.....	1,587,500	2,565,100	1,190,500	2,020,500
Corn.....	9,142,000	10,285,900	9,567,000	11,343,000
Oats.....	5,594,000	5,200,000	6,293,200	5,512,000
Rye.....	340,000	492,000	224,500	207,000
Barley.....	2,144,000	1,299,000	981,000	604,111

LAW AND LITIGANTS.

Speculative Contracts.

In the case of Lyons vs. Hodgen the Kentucky Court of Appeals decided that the purchase or sale of grain, provisions and stocks which does not contemplate a delivery, but only a periodical settlement of the differences between the agreed and market prices of the things bought and sold, is within the Kentucky gambling statute, and money or property lost in such transactions may be recovered.

Recovery of Damages from Carrier.

Where the bill of lading under which goods are shipped provides that the carrier shall be liable only for such damage as results to the goods while on its lines the shipper must show that the goods were safely delivered to the carrier. Having shown this, the shipper may recover, in Alabama, the market value of the goods, though the bill of lading limits the liability of the carrier to \$5 a hundred pounds. — *Georgia Pacific Ry. vs. Hughart, Supreme Court of Alabama, 8 South Rep. 62.*

Exemption from Liability for Fire in Bill of Lading.

A railroad company may, by a provision in its bill of lading, exempt itself from liability for loss of the goods shipped thereunder, from fire which is in no way attributable to its own negligence, but it is liable for loss by fire resulting from its negligence, a provision in the bill of lading to the contrary notwithstanding. But the burden of proof is on the shipper to show that the fire was the fault of the company. — *Louisville & N. Ry. Co., Supreme Court of Tennessee, 14 S. W. Rep. 314.*

Freight Rate Discrimination.

An agreement for evading the Inter-State Commerce Act, by which a railroad company bills goods from a given point as from a different point, and then pays back to the shipper the amount of freight it would have had to pay another road had it actually been shipped from the point from which it was billed, is in violation of the commerce act, and the act is criminal. — *United States vs. Michigan Central Ry. Co., District Court of the United States, Northern District of Illinois, 43 Fed. Rep. 26.*

Damages for Breach in Sale of Good Will.

While the damages arising from the breach of a contract for the sale of the good will of the business, coupled with an agreement on the part of the seller not to enter into the same business in the same place are uncertain and difficult of ascertainment, actual damages must nevertheless be proved, and the buyer must show such damage and provide the data from which it may be computed, or he is only entitled to a judgment for nominal damage. — *Hosard vs. Taylor, Supreme Court of Alabama, 8 South Rep. 37.*

Damages for Failure to Return Machinery Placed on Trial.

The New York Court of Appeals has decided a case where the inventor of a certain machine put a number of them into a factory on trial. At the end of a period agreed upon the factory owner was to return the machines or buy them at a price based upon the amount of work done with them over that done before they were put in. The factory owner refused to buy them at the expiration of the trial term, and the inventor demanded their return, which was refused. The inventor may recover damages for their detention to the amount of the interest on the value of the machines from the time of demand.

Bucket Shops in Kentucky.

The Kentucky Court of Appeals has rendered a decision which gives the loser in the bucket shop transactions the same right to recover the money as in other kinds of gambling. The case was that of J. W. Lyons vs. Thos. J. Hodgen and Isaac P. Miller. Lyons sought to recover of Hodgen & Miller \$1,600 which he lost in futures with the firm named between January, 1884, and January, 1896, and Judge Toney, in a lengthy opinion in the case delivered in December, 1887, decided that he could not recover. May 23, 1888, the Superior Court reversed Judge Toney's decision, and the case was carried to the Court of Appeals. This court has also reversed Toney's decision, holding that bucket-shop transactions come under the head of wagers under the law, and the losers may sue and recover money thus lost.

Possession of Indianapolis Elevator.

A decree was filed in the Circuit Court at Indianapolis recently by Justice Harlan of the United States Supreme Court, sitting as a circuit judge. In the matter of the petition of the First National Bank of Indianapolis in the case of John D. Probst vs. the Indianapolis, Decatur & Springfield Railway Company. The bank claimed the rent of an elevator from May 10, 1893. Justice Harlan ordered that Sands & Pierce, trustees in the mortgage of the L. D. & S., surrender possession of the elevator and the land appurtenant thereto to the receiver of the court, upon the demand of said receiver, and that the receiver immediately thereafter surrender possession to the First

National Bank of Indianapolis. The order is without prejudice to any right which the L. D. & W., or trustee in mortgage of Dec. 31, 1875, may have in or to the elevator, or to the land appurtenant thereto.

Press Comment.

CORN BELT IS GOING NORTH.

A quarter of a century ago it was thought that corn could not be raised in Iowa, and now it is found that South Dakota can make as creditable showing in the production of corn as any state in the Union. It is also found that what is known as the corn belt is gradually but surely advancing on its northern boundary annually—and even in Grand Forks county certain kinds of corn are raised successfully every year. — *Roller Mill*.

THE SILVER ROUBLE HAS ADVANCED.

Russian wheat is getting so scarce and so dear, owing to the exchange value of the rouble—80½d. against 25d six months ago—that it is fortunate that Danubian wheats are so plentiful and so useful as millers' wheat this year. Roumania, which a few years ago was hardly counted as a wheat exporter, will this year probably ship more wheat than the Atlantic ports of America. A miller who has used the new Danubian wheats informs us, however, that the presence of the *melilotis* seed in one lot he ground was very objectionable. — *Millers' Gazette, London*.

CONTINUOUS QUOTATIONS FOR THE PUBLIC.

Our private opinion publicly expressed on numerous occasions is that: It would pay the Chicago Board to appropriate \$50,000 a year, or more, for the purpose of placing a bulletin board in the telegraph offices of every city in the land of over 10,000 population, and arrange to have their quotations promptly posted and to promptly furnish every grain exchange of the country with continuous official quotations of all their speculative commodities. The result might be to occasionally upset the schemes of some of their "plungers," but it would largely increase the volume of their trading and give all dealers something reliable to base their operations upon. — *Duluth Daily Circular*.

HAVE DIFFERENT STANDARDS.

The inspection is against the shipment of wheat from here to Chicago for several reasons, the chief being that Minneapolis and Chicago are under entirely different standards, and the same wheat that goes regular in one does not in the other. Regular wheat here is No. 1 Northern, while regular wheat there is No. 2. Ours has a name more high sounding than theirs, and yet when it is there they are so apt to class it No. 3 that the shippers have quit calling it a joke. Some Chicago men were looking our cash wheat over for elevator storage there, but were afraid of it going No. 3 there. We depend for values and grades very much upon hardness, they upon plumpness. Plump soft wheat will not go No. 1 Northern with us, nor will thin hard wheat go No. 2 with them. — *Minneapolis Record*.

INDIAN AND AMERICAN WHEAT.

An Indian journal expresses the feelings of Indian traders with respect to American competition. "For years the American farmer has been selling less wheat for gold in competition with Indian wheat which was bought with silver and the British importer bought silver with his gold and exchanged for Indian wheat, until the price rose to a point at which it became cheaper to pay for American wheat with gold. Now that silver has risen 16 per cent., the price of Indian wheat is advanced just that much, and is handicapped by that percentage in competition with American wheat." Indian traders, however, need not feel alarmed, at least for the present, as the American wheat crop this year happens to be 15 per cent. smaller than it was a year ago, and thus a coincidence about equalizes matters, or tends to do so. — *Mark Lane Express*.

EFFECT OF FUTURE TRADING.

Does trading in futures have an upward or downward effect upon the prices of grain? The advocates of Mr. Butterworth's bill claim that it has the effect of reducing prices, and that thereby money is taken out of the pocket of the producer for the benefit of the speculator. Statistics establish beyond question the fact that this fictitious traffic has a tendency to raise prices as often as to lower them. Just now we have a striking illustration of this. A few weeks ago wheat sold at 85 cents, corn at 20 cents. Now wheat is worth over \$1, and corn is nearly 50 cents. This rise in price is very evidently the result of the operations of speculators who are buying in expectation of a coming shortage. If they were compelled to have actual possession such an advance could not possibly occur. The farmer, instead of receiving the benefit of the increased rates at once, would have to wait several months for it. Thus they are helped, not injured, by this speculative stimulation. — *Baltimore Herald*.

The Crane Company of Minneapolis, Minn., have a contract for ten elevators, each of 30,000 bushels capacity, to be erected on the Cavalier branch of the Great Northern Railway Line.

ITEMS FROM ABROAD

Denmark's 1890 wheat crop is estimated at 4,825,000 bushels and rye at 17,000,000 bushels.

A grain and cotton warehouse at Alexandria, Egypt, was burned Sept. 18. Loss, \$250,000.

The wheat crop of Italy is estimated at 120,000,000 bushels, against 100,000,000 bushels a year ago.

From Hungary it is reported that the export trade in wheat and flour is seriously handicapped by the rise of 15 per cent. in the exchange, compared with two years ago.

Spain's importations for the last three years have averaged rather over 8,000,000 bushels. This season the crop has turned out a great disappointment, and more than usual must be imported.

Switzerland usually takes about 1,000,000 quarters foreign wheat every year, and although she has secured a very fine crop this year, it is not probable that she will take as much again during the ensuing twelve months.

Linseed shipments from India for August were very light, and compare with the same month for previous years as follows: August, 1890, 613,000 quarters; August, 1889, 1,137,000 quarters; August, 1888, 1,282,000 quarters.

Exports of wheat from India from Jan. 1 to Aug. 30 were 16,900,000 bushels, against 17,180,000 bushels for the same time last year. Of this amount 11,020,000 bushels went to the United Kingdom, against 11,760,000 for the same time last year.

All the flour mill proprietors of Lisbon, Portugal, have combined to close their mills in order to try to compel the government to allow them to import as much wheat as they like and to repeal the recent law forbidding them to import more than one-half of the wheat ground.

The French Minister of War has decided that foreign wheat shall be henceforth excluded from all subsistence contracts for the army. The official reason given is that the average production of wheat in France is amply sufficient for the needs of the military and civilian classes of the population.

During the twelve months ending with September Belgium imported about 26,400,000 bushels of wheat. Her crop this year was about 20,000,000 bushels, and as the annual consumption is about 42,000,000 bushels, nearly as much must be imported during the ensuing crop year as the last.

The Russian Government is constructing at harbor Novo Rossoisky, on the Baltic Sea, an elevator capable of containing 3,000,000 pounds (108,000,000 pounds) of grain. The structure will cost 2,600,000 roubles. The various magazines of the elevator will be connected by appliances of American invention.

The English linseed market is getting excited over the large falling off in the supply. The importations so far this year have fallen off 213,649 quarters, and the amount on passage is 235,000 quarters less than last year, making 448,649 quarters deficiency, which will be increased considerably before the end of the year.

An official report says that this year's crops in East Prussia will exceed last year's in all cases, with the exception of hops. Wheat and buckwheat are reckoned as average crops, rye is expected to be $\frac{1}{2}$ above an average, and beans and peas 1 10 above; rapeseed and rubenseed are expected to yield only 9-10 of an average.

In Southwest Cork the blight is so severe that it is difficult to find any potatoes at all. To make matters worse, the hay crop has been irretrievably ruined, the oat and wheat crops are affected by smut, and the turf will run short before the winter is far advanced. A case of fatal illness following upon a diet of affected potatoes is already reported.

The erection of grain elevators in Russia seems about to be largely extended. The southern society of landholders has just petitioned the government for concessions to erect elevators in Odessa, Sebastopol, Kertsh, Berdjansk, Taganrog and other ports of the Black Sea and Sea of Azov. The society is stated to have a capital of 25,000,000 roubles.

By virtue of a commercial treaty recently concluded between Germany and Morocco a considerable reduction has been granted on many articles exported from the latter country. Among the goods which will profit by this concession are Indian corn, beans, lentils, cumin seed, caraway seed, cress seed, fenugreek seed, linseed, Hamid seed, Nigel seed, sesame seed, and small millet.

A private letter from Wandearah states that the mice have become a real scourge. They eat almost everything, are systematically grubbing the growing wheat, have destroyed in a short time from 10 to 25 per cent. of little lots of wheat farmers held at home. Time was when farmers counted what they caught, but it has grown monotonous, and they now measure them by the bucket-

ful, in some cases they say bushel. The accounts published are not exaggerated.—*South Australian Chronicle*.

The grain trade between Suakim, Egypt, and the interior, has been stopped in order to prevent the spread of cholera.

Novorossist, a new Russian port which has been connected by a recently constructed railway with the rich wheat region of the Kuben, is reported to have shipped 337,723 tons of wheat during the last eight months. During the entire year of 1888 it shipped only 34,590 tons. This vast increase has been caused by the opening up of the Kuben region where 30,000,000 bushels of wheat are annually raised, but which until this year has been inaccessible.

Ireland is a great flax-producing country, as also is Russia, Germany, France, Belgium, Holland and Egypt. France consumes the greater portion of her products in local manufactures, as also does Germany, with the exception of Prussia. The finest Russian flax is thought to grow around Riga. The English import largely from Holland and Russia, and buyers in the latter market are also met by French and Belgium importers. The demand is equal to the supply, and if American farmers produced a good well prepared straw, the demand for it would improve.

German reports show that barley has been damaged more or less by rains all through. In the north of Germany it is so poor in quality that it is said very little is fit for malting at all and Russian barley, which is better, is in excellent demand there, and the finer quality of Danubian is taken extensively. There is a good demand to go to England from light colored Bohemian and Hungarian sorts. The stock of fine light colored barley is, according to accounts from there, very small through nearly the whole of Europe, and comparatively strong prices are paid for it.

Consul Turner at Cadiz in a recent report said: Here, so far as I am able to learn, Indian corn is not used for food. The corn raised here, as well as that which is imported, is fed to animals or used for distilling. Sweet corn, canned corn, corn bread, mush, etc., are not known. The great question with the working classes is how to get bread. This question would be less difficult of solution were the food used of Indian corn as well understood here as in the United States. Corn bread, canned corn, etc., would be great gifts to the workers of Europe, and it would seem that an understanding of their value might be brought about wherever bread is hard to get. Being wholesome and cheap, corn should win its way.

WATERWAYS

At Baltimore, Oct. 4, two boatloads of grain were taken as ballast for Liverpool, the vessel paying a bonus of one cent per bushel.

Several loads of grain were shipped from New York to Liverpool the last week of September, without charge for freight room.

The head gates of lock 18, Welland Canal, which were carried away a short time ago and repaired, were again carried away on the night of Sept. 17.

The steam canalboat Welcome, owned by Norton Bros., and loaded with 4,000 bushels of wheat, was struck by a sand scow at Chicago recently, and soon sank.

Lake and rail rates to the seaboard were raised Oct. 1 to the following figures: Corn, 10 $\frac{1}{2}$ cents; wheat, 11 $\frac{1}{2}$; rye, flaxseed and barley, 10 $\frac{1}{2}$; oats, 7; clipped oats, 6 $\frac{1}{2}$.

The Canal and Harbor Protection Union, which met at Buffalo recently, accomplished nothing. The meeting broke up in a row. The antis probably had the meeting packed.

The prospects are that the Columbian Government will extend the time for the completion of the Panama Canal eight years longer, as the president of the Republic has recommended it.

A ship canal has been projected in New Jersey to connect the Delaware River and the Atlantic Ocean, crossing the state from Mt. Holly on the Delaware to Shark River, a distance of about sixty miles.

For some time preceding the enforcement of the new tariff law the demand for vessel tonnage in all Canadian ports on the great lakes was very strong, and large quantities of barley were shipped to the United States.

It is expected that the libel of the cargo of the steamer Marshall will lead to a lawsuit. She was detained seven days in Gladstone getting her cargo; so her owners ordered her grain tied up for about \$500 as soon as it was in elevator at Buffalo.

The steamer Emily P. Weed has taken another big cargo. She was chartered in Milwaukee and took 120,000 bushels of barley to Buffalo at 2 cents, which is the largest ever taken from that port. The steamer Maurice B. Grover cleared with 100,000 bushels of barley.

Judge Alvey at Hagerstown, Md., recently decided that the Chesapeake and Ohio Canal should be sold, together with all the property and franchises of the company. The judge concurs in the opinion of the engineers, who made a personal inspection, that the canal cannot be re-

stored with any reasonable prospect of being made to produce revenue applicable to the payment of its large bonded indebtedness.

The surveys of the Pennsylvania Ship Canal are practically finished, and the commission appointed by the Legislature will ask the state to complete the canal. The commission find the scheme feasible and favor a route along the Beaver River to Lake Erie.

The Chicago Board of Marine Underwriters has adopted the following grain schedule for trip rates: To ports on Lake Michigan, 50 cents; ports on Lake Superior, 60 cents; Lake Huron, Sarnia and Detroit River, 55 cents; Georgian Bay ports, 60 cents; Lake Erie, 60 cents; Lake Ontario, 75 cents; to Ogdensburg, 75 cents; to Montreal, \$1.

The Chicago grain trimmers deny the announcement that the steamer America could have carried 8,000 bushels more when she left Chicago with 111,550 bushels of corn for Buffalo. They claim that trimmers who understand their work could have made her carry 800 bushels more than she had on, and that they would have had her loaded in less than one-half the time it took to load her with her crew doing the trimming.

Few people who live at a distance from the great lakes have an adequate conception of the magnitude of their commerce. It will surprise them, perhaps, to learn that during 234 days of navigation last year tonnage passed through the Detroit River to the amount of 10,000,000 tons more than the entries and clearances of all the seaports in the United States, and 3,000,000 tons more than the combined foreign and coastwise shipping of Liverpool and London. Nor does this include traffic between Lakes Superior and Michigan, or Lakes Erie and Ontario, or local traffic between ports on these lakes.


Captain McDougall says that his company is going into vessel building on the Pacific coast on a large scale. At first they will use the vessels for the coasting trade. But before long they will be carrying goods across both the Atlantic and Pacific. He predicts that within five years their Atlantic and Pacific whalebacks will meet in distant quarters of the globe. Inside of a short time they may increase their capital stock from \$2,000,000 to \$5,000,000. They have secured patents in almost every country of Europe and North and South America, and intend to push the business all over the world for all that it is worth.

The application of electricity to canalboats has been suggested by W. L. Adams of Pittsburg. He proposes to use an electric trolley to tow the boats. If Mr. Adams' plans are feasible, the problem of getting speed on canals is solved. Labor as well as time will be saved, and the electric current which hauls his boat along at a round rate of speed will cook the captain's meals, warm his feet and light his course over the raging main. Water power for running the electric motors could be obtained in many places, and Mr. Adams estimates that the cost of hauling by electricity will be very moderate. Cheap transportation of grain is what this country wants.

A. J. Menocal and several other gentlemen of the engineering staff of the Nicaragua Canal construction corps have reached Washington from Greytown. They report commendable progress, and the active work of canal construction is now well under way, and well started and under such favorable financial auspices that the success of the scheme, they say, is assured. Already the pier or breakwater extending out into the gulf at Greytown is nearly completed, the actual dredging for the canal on the gulf side has begun, the telegraph line from Greytown to Lake Nicaragua, connecting with the lines on the Pacific coast, is completed and the railroad from Greytown to the lake along the line of the canal is well under way.

With the signing of the river and harbor bill by the President of the United States a grant of half a million dollars has been appropriated for the survey of the Illinois River from LaSalle to the Mississippi River while the further expenditure of \$20,000,000 for the completion of the canal still hangs in the balance; with the grant \$500,000 for purely surveying purposes, it is to be hoped that the question of opening a shoal water canal of questionable utility will cease, and the Hennepin Canal scheme be relegated to the bounds of oblivion for another generation, for with the outlay of \$20,000,000, another sixty millions would be required to render the Mississippi valuable as commercial and navigable waterway for a few months in each year.—*Marine Record*.

Work on the Canadian "Soo" Ship Canal is being rapidly pushed forward. The work is being carried on systematically, the power being derived from the waters of the "Soo" Rapids, with a flume of 1,500 horse power capacity, running six water wheels, three of which drive the air compressor, one of them driving a pump by transmission cable, and the other driving the machinery of the carpenter, blacksmith, and machine shops. The system of excavation is by derricks set up at intervals of 120 feet at each side of the lock-pit, each having a boom, or arm, seventy feet long. About two weeks' more work will complete the excavation of the lock-pit. The distance from the water to the beginning of lock-pit is about 300 feet and from the upper end of lock-pit to the waters of Lake Superior 2,600 feet, making the entire length of the canal from water to water 3,700 feet. The lock will have a depth of eighteen and one-half feet of water over the miter sill at low water mark, and will be 600 feet between gates with a mean depth of eighty-five feet from wall to wall, curving in at both ends to a width of sixty-five feet at the gates. The entire canal without any doubt will be ready for lockages by the latter part of the summer of 1892.



ELEVATOR AND GRAIN NEWS

A brewery is talked of at La Jara, Colo.
 A brewery will be built at Seattle, Wash.
 A brewery will be erected at Anniston, Ala.
 An oil mill is being erected at Caldwell, Tex.
 A brewery is being built at Fort Worth, Tex.
 A broom factory will be erected at Luray, Va.
 Sheffel & Co. will build a brewery at Chicago.
 A broom factory will be erected at Gurley, Ala.
 Peter Hauser will build a brewery at Sarnia, Ont.
 H. Koeneman will build a brewery at Golden, Cal.
 A. Eager, grain dealer at Abbott, Neb., has sold out.
 An oil mill will probably be erected at Harmony, Ga.
 A cotton seed oil mill will be erected at New Orleans, La.
 Marcus Marietta will build a brewery at Connellsville, Pa.
 Charles Mayer intends to build a brewery at Rockford, Ill.
 John McEachem, grain dealer at Eldon, Neb., has sold out.
 G. P. Chessman, grain dealer at York, Neb., has sold out.
 W. B. Moore will build a grain elevator at Strathclair, Man.
 Kalmbach & Geisel will build a brewery at Springfield, Mass.
 Henry Finch, Jr., will build a brewery at Dunkirk, N. Y.
 J. D. Kippen will buy wheat at Russell, Man., this season.
 Stallcup & Co., grain dealers at Sikeston, Mo., have sold out.
 R. L. Bliss & Co., grain dealers at Elwood, Neb., have sold out.
 J. J. Higginson, grain dealer at Philadelphia, Ill., has sold out.
 A cotton-seed oil mill and guano factory is talked of at Perry, Ga.
 Hon. T. Greenway is erecting an elevator at Crystal City, Man.
 Joseph Kollmer & Co. will rebuild their brewery at Peoria, Ill.
 George N. Wilson will build a broom factory at Springfield, Ohio.
 Smith & Hopkins, grain dealers at Dorrance, Kan., have sold out.
 A 1,000,000-bushel elevator will probably be built at Wichita, Kan.
 E. Murphy at Mt. Forest, Ont., is building a 6,500-bushel elevator.
 A. H. McLeod has built a new grain elevator at St. Johnsbury, Vt.
 The Vernon Elevator and Mill at Vernon, Tex., has been completed.
 The Chatham Brewing Company will build a brewery at Savannah, Ga.
 The Rugby Distilling Company has been incorporated at Louisville, Ky.
 The Jung Brewing Company will build a large brewery at Covington, Ky.
 The American Starch Company has been incorporated at Columbus, Ind.
 R. P. Morrison, grain and hay dealer at Lawrence, Mass., has sold out.
 Schroeder & Dean, grain dealers of Omaha, Neb., have suspended business.
 Byron & Neier, grain and feed dealers at Fort Worth, Tex., have sold out.
 Ellis & Sons' new grain elevator at Indiana, Pa., is nearing completion.
 The Knoxville Brewing Company will erect a brewery at Knoxville, Tenn.
 C. Steiner of Greensboro will build a cotton-seed oil mill at Seneca, S. C.
 The 1,000,000-bushel Burlington & Mississippi grain elevator at Burlington, Iowa, owned by a New York syndicate and Burlington capitalists, has been leased to a

Western syndicate, managed by Messrs. Woodward and Harris.

An oil mill and fertilizer factory will probably be erected at Miller, Ga.

The Enterprise Mills at Murfreesboro, N. C., will build a cotton-seed oil mill.

Eacrett & Saylers, grain dealers at Solomon, Iowa, have dissolved partnership.

H. Miller & Co., grain dealers at St. Louis, Mo., have dissolved partnership.

The Klinkert Brewing Company will build a brewery at West Superior, Wis.

The Mobile Brewing Company will erect a \$25,000 brewery at Mobile, Ala.

The Indiana Brewing Company will enlarge its brewery at South Bend, Ind.

The elevator at Aberdeen, S. Dak., which was recently burned, is being rebuilt.

The Syracuse Brewing Company of Syracuse, N. Y., will enlarge its brewery.

The Belmont Brewing Company has been incorporated at Martin's Ferry, Ohio.

John Van Antwerp has just completed his elevator and mill at Fultonville, N. Y.

A grain elevator is being built on the Northern Pacific Railway at Brandon, Man.

G. H. Raymond, grain dealer at Saccarappa, Me., is having a very good trade.

Applegate & Co., grain dealers at Chicago, have failed, with liabilities of \$50,000.

R. Monarch has purchased the T. J. Monarch Distillery at Grissom's Landing, Ky.

Vetter, Stafford & Co., grain dealers at Stanton, Iowa, have dissolved partnership.

Milmine, Bodman & Co., grain dealers of Chicago, have dissolved partnership.

The Union Elevator of Milwaukee, Wis., has withdrawn from the regular list.

A grain warehouse of 10,000 bushels' capacity is talked of at Reaburn Station, Man.

The Belmont Brewing Company will erect a new brewery at Belmont, W. Va.

The Schmulbach Brewing Company at Wheeling, W. Va., is enlarging its brewery.

Ed M. Higgins, grain broker of Lincoln, Neb., has removed to Sioux City, Iowa.

The Shreveport Broom and Brush Works have been established at Shreveport, La.

J. R. Milligan, grain and lumber dealer at Assumption, Ill., has discontinued business.

The Mobile Brewing Company at Mobile, Ala., will erect a brewery to cost \$25,000.

Evans & Grandy, grain and flour dealers at Norfolk, Va., have dissolved partnership.

The Lake of the Woods Milling Company are building an elevator at Plum Creek, Man.

A. M. Hance of Philadelphia, Pa., will erect a brewery and ice factory in Richland, Va.

Work has been commenced on the foundations of the new brewery at Evansville, Ind.

Rogers & Sprague, grain dealers and millers at Minden, Neb., have dissolved partnership.

Emil Grant, a grain buyer at Syracuse, Neb., is reported to have suddenly left town.

A stock company will probably be organized at Waco, Tex., to erect cotton-seed oil mills.

The Newberry Oil and Fertilizer Company will erect a cotton seed oil mill at Seneca, S. C.

Ogilvie & Co. have put in elevating machinery in their grain warehouses at Alexander, Man.

Glenny & Violett, grain and cotton dealers at New Orleans, La., have dissolved partnership.

Hanna, Waters & Co., grain dealers at Galveston, Tex., have been succeeded by Waters & Co.

The Victor Mills Company will erect a 40,000-bushel grain elevator at Morgantown, W. Va.

The Arkansas Brewing and Ice Company will build a \$300,000 brewery at Little Rock, Ark.

S. C. Hunt & Son, at Lynchburg, Va., will erect a 100,000 bushel elevator for their flour mill.

Joseph David, grain dealer at New Orleans, La., has been succeeded by Joseph David & Co.

Clark & Basche, grain dealers at Baker City, Ore., have been succeeded by Clark, Basche & Co.

The Exposition Brewing Company of Detroit, Mich., will build a \$40,000 brewery at Delray.

The grain receiving business at West Superior, Wis., has been very lively of late. From 100 to 200 cars of wheat arrive daily by one road. The elevators have been

running seven days per week, new men have been added to the force, and receipts are increasing.

Fairchild & McElroy, grain and cotton dealers at New Orleans, La., have dissolved partnership.

Skinner & Kavan, grain and lumber dealers at Morse Bluffs, Neb., have dissolved partnership.

The Pleasure Ridge Park Distillery Company has been incorporated at Pleasure Ridge Park, Ky.

The City Brewing Company has been incorporated at Detroit, Mich., with \$50,000 capital stock.

A. H. Thaxter & Co.'s grain elevator at West Cove, Mooshead Lake, Me., is almost completed.

A grain storage company has been organized at Johnstown, Wash., with a capital stock of \$5,000.

The Limestone Starch Company has been incorporated at Limestone, Me., with \$7,500 capital stock.

The Swedish Brewing Company has been incorporated at Rockford, Ill., with \$20,000 capital stock.

The new Exchange Elevator at Buffalo, N. Y., has been completed, and is receiving grain in cars.

The State Farmers' Alliance of Virginia will probably organize a warehouse company at Lynchburg.

J. L. McLean, grain and cotton dealer at New Orleans, La., has been succeeded by Jas. McLean & Co.

The Waukesha Brewing Company has been incorporated at Chicago with \$150,000 capital stock.

Burnes & Thompson, grain dealers at Duluth, Minn., have been succeeded by A. D. Thompson & Co.

Martin Bros. at Mt. Forest, Ont., are building a 75,000-bushel elevator, with all modern improvements.

Otto Arens of Gruner, Siegfried & Co., grain, cotton and coffee dealers at New York City, has retired.

A. H. McLeod, St. Johnsbury, Vt., has a new elevator that will move 2,000 bushels of grain in an hour.

Thomas J. Duffy, grain and coal dealer at Emmettsburg, Iowa, has been succeeded by H. C. Darrah.

T. R. Cooke & Co., grain and feed dealers at Norfolk, Va., have been succeeded by W. M. Cooke & Co.

The stock of the United Elevator Company at St. Louis, Mo., is now selling at 50; it is offered at 53.

The Muskegon Brewing Company has been incorporated at Muskegon, Mich., with \$250,000 capital.

The Lake Superior Car Service Association has been organized at Duluth, Minn., and West Superior, Wis.

The 6 per cent, 5 to 20-year bonds of the Venice Elevator at St. Louis, Mo., are selling at 96; 98 is asked.

A large brewery will be built in Northeast Minneapolis, Minn., by the brewing combination, to cost \$500,000.

E. B. Clement and Geo. A. Parker have organized the firm of Clement, Parker & Co., at Minneapolis, Minn.

The elevators and mills at Arkansas City, Kan., are driven by water power derived from the Arkansas River.

W. T. Lamoreaux, dealer in grain and seeds at Grand Rapids, Mich., has been succeeded by W. T. Lamoreaux & Co.

G. F. Knight, dealer in grain and agricultural implements at Monroe, Iowa, has been succeeded by Idle & French.

Loomis & Co., who have been running a bucket shop in Chicago, failed Sept. 13. Their liabilities are about \$35,000.

A grain elevator and depot will probably be erected at West Lincoln, Neb., by the St. Joseph & Grand Island Railway.

The City Elevator Company's 50,000-bushel elevator at Minneapolis, Minn., will be operated as a wheat house exclusively.

A large amount of wheat is being shipped from Eastern Washington to the elevator at Seattle. It will be shipped to Liverpool.

The Atkinson Milling Company at Atkinson, Neb., is building a granary 16x100 feet, with a capacity of 9,000 bushels of wheat.

George F. Putnam & Co. have leased elevator "K" at Minneapolis, Minn., formerly owned and operated by the late D. R. Putnam.

The purchasers of the Thompson elevator at Adrian, Minn., have incorporated the Adrian Alliance Mercantile and Elevator Company.

R. D. Hubbard & Co. of Mankato, Minn., will rebuild their elevator which was recently burned. It will be of 170,000 bushels' capacity.

W. H. Beebe & Co. of Chicago recently received the first car of corn of this season's crop. It was from Sibley, Ill., and graded No. 4.

Messrs. Hill Bros. & Co. of Chicago are putting the machinery into their new elevator on Thirty-ninth street. They propose to make this the finest cleaning house in the city. They are putting in a full line of Eurcka ma-

chines, including separators, oat clippers and scourers made by S. Howes of Silver Creek, N. Y., each of the largest capacity.

Mr. C. G. Austin, manager of the grain warehouses at Seattle, Wash., is confident that the grain receipts at Seattle will greatly increase.

The grain contained in the elevator burned at Ogdensburg, N. Y., Sept. 9, has been sold for \$20,000. The total insurance was \$147,000.

Beck & Hexamer, grain, flour and feed dealers at Philadelphia, Pa., have dissolved partnership. J. Howard Beck will continue the business.

The Cuero Cotton-Seed Oil and Manufacturing Company has been incorporated at Cuero, Tex., with \$25,000 capital stock, to build an oil mill.

G. W. Van Dusen & Co., grain dealers at Minneapolis, Minn., have re-incorporated, with headquarters at Minneapolis instead of Rochester, Minn.

The Union Pacific Railroad Company will build a 1,000,000 bushel grain elevator at Elmwood, Neb., opposite St. Joseph, Mo., to cost \$500,000.

The grain dealers at Wilton, Iowa, are doing an excellent business; it is said that the dealers are paying higher prices than dealers at neighboring points.

Gautier de St. Croix' elevator at Fisher, Minn., has been completed. It is so arranged that farmers can have their own bins, each farmer having a key.

The Miller Grain and Elevator Company has been incorporated at St. Louis, with \$75,000 capital. The incorporators are Henry, August and Anton Miller.

Stockton, Cal., capitalists are going to build a grain elevator 600 feet wide, and 1,400 feet long, with a capacity of 100,000 tons. It will be built wholly of galvanized iron.

Charles Smith & Co., grain dealers at Chicago, have failed. The liabilities are \$100,000. Mr. Smith was a bold and active speculator, and dealt heavily in wheat and corn.

Mr. J. Johns of Minneapolis, Minn., has secured locations for elevators from the Northern Pacific Railroad Company at Cooperstown, Steele, Sanborn and Sykeston, N. D.

The elevator capacity of the Inter-State Grain Company of Minneapolis is being increased by the building of thirty new houses, mostly of about 15,000 bushels' capacity.

The burning of the old elevator at Ogdensburg, N. Y., has sadly crippled grain transactions at that place. The new elevator will hold considerable less than 1,000,000 bushels.

Messrs. Schultz, Baujan & Co., Beardstown, Ill., have recently ordered a Eureka separator, made by S. Howes of Silver Creek, N. Y., for their elevator at that place.

McBean Bros., grain dealers at Winnipeg, Man., have dissolved partnership. Duncan G. McBean continues the business, while A. G. McBean enters the grain business at Montreal, Can.

The Union Elevator Company of Minneapolis, Minn., has decided not to take out a license, because the large percentage of "no grade" wheat of this crop could not be handled to advantage.

Six elevators in Minneapolis, Minn., will not take out licenses. This will add about 3,000,000 bushels to the stock in private elevators, which thus disappears from the visible supply statements.

The Elevator Company at Harold, Tex., will build another section to the elevator at that place, as the present elevator is not large enough to handle the vast amount of grain raised in that section.

The Great Northern Railway Company has taken out a license making elevator "B," at St. Paul, a public warehouse. This is the first license granted for a public warehouse in St. Paul for five years.

A grain dealer of Chicago recently confessed to a justice that he cheated the Milwaukee & St. Paul Railroad, when getting grain, by taking a boy in his wagon, weighing him in, but not when going out.

J. B. Billard of the Central Mills, has commenced the erection of an elevator in the rear of his mill property, at Topeka, Kan. The capacity is to be 60,000 bushels, and it is to cost between \$8,000 and \$10,000.

The Cerro Gordo F. M. B. A. Scale Company has been incorporated at Cerro Gordo, Ill., to deal in grain and coal. The capital stock is \$10,000. The incorporators are W. P. Gara, A. F. Baker and others.

Elevator A of the Great Northern system at West Superior, Wis., received 2,050 cars of wheat during the last three weeks of September. During the same time over 800,000 bushels were shipped by vessel.

Messrs. Luce & Co. of Minneapolis, Minn., who are building the new elevator at South Elmhurst, Ill., are equipping it with Eureka separators and oat clippers made by S. Howes of Silver Creek, N. Y.

Messrs. Howard & Alexander of Jewell Junction, Ia., who buy grain at twenty-nine points in that state, have decided to make a general cleaning house of their elevator at Belle Plaine. They will put in new boiler, engine,

etc., and will use the Eureka separators, made by S. Howes of Silver Creek, N. Y. They expect to handle fifty thousand bushels of grain a day.

Edson Gregg, grain dealer of St. Joseph, Mo., who was charged with obtaining \$15,000 on false pretenses, from Johnson & Co. of Chicago, was discharged. The jury, after being out sixteen hours, agreed to disagree.

Portage Milling Company is building a second elevator at Portage la Prairie, Man. Its capacity will be 50,000 bushels. This will give the Milling Company storing capacity for about 175,000 bushels of grain at the mill.

F. H. Peavey & Co., who own elevators in Washington, are sending samples of white wheat raised there to winter wheat millers at St. Louis and Milwaukee, and in Illinois and Indiana, for mixing. Good results have been obtained.

Elevators "E1" and "E2," at Minneapolis, Minn., operated by the Sowle Elevator Company, will not take out licenses. Elevators "A 2," "Star," "Union," "St. Anthony," "Transfer" and "Interior No. 1," will take out licenses. Elevator "A 1" will also be private.

The Chicago, Milwaukee & St. Paul elevator "A" at Milwaukee, Wis., recently leased by Faist, Kraus & Co., maltsters, has been declared irregular by the directors of the Milwaukee Chamber of Commerce, because the lessees were engaged in the cleaning and mixing business.

Messrs. Pratt & Co., Decatur, Ill., have their new elevator in that city about ready for work. It will have a transfer capacity of one hundred cars a day. The Union Iron Works of Decatur are doing the work. S. Howes of Silver Creek, N. Y., supplies the separators, clippers and other cleaning machinery.

The Union Elevator Company of Minneapolis, Minn., held its annual meeting recently and elected officers as follows: President, H. W. Pratt; vice-president, J. S. Pillsbury; treasurer, Charles K. Sidle; directors, H. W. Pratt, J. S. Pillsbury, C. K. Sidle, C. A. Pillsbury, S. G. Cargill, G. W. Porter and A. F. Gale.

Judge Titus recently authorized Mr. Lang, receiver of Sherman Bros. & Co., of Buffalo, N. Y., to sell at auction all the accounts of the firm that he could not collect. Stephen F. Sherman has not been convicted and is still at large. The receiver has collected about \$7,000, which would give the creditors about two cents on the dollar.

The St. Anthony Elevator Company of Minneapolis, Minn., has elected officers as follows: President, L. R. Brooks; vice-president, W. H. Dunwoody; secretary and treasurer, Charles J. Martin. F. H. Peavey, formerly president of the company, disposed of his stock to Mr. Brooks. J. S. Bell succeeds Mr. Peavey in the directory. Thomas Metcalf was re-elected superintendent.

The Richmond Cedar Works at Greenville, Ala., have taken off twenty-four iron pulleys from the arbors of their lead-pencil grooving saws, and replaced them with the celebrated Menasha Small Hard-maple Pulleys, made by the Menasha Wood Split Pulley Company of Menasha, Wis. This was done to stop the danger of heating the boxes, caused by the weight of the fast-running iron pulleys on the arbors.

The Yaeger Flour Mill Company of Carlinville, Ill., who have been remodeling, are now under full blast. They have changed from the roller system to that of the Cornelius internal roll, and pronounce it a big success. They have discarded the wheat cleaners formerly used in the large elevator connected with the mill and have replaced them with the Eureka separators made by S. Howes of Silver Creek, N. Y.

The well-known firm of Chandler, Brown & Co., grain commission dealers at Milwaukee, Wis., has been succeeded by W. S. Pirie & Co. Mr. Pirie was with the old house for eight years, and has managed the Milwaukee branch for fifteen months. Mr. Broeg, who is a member of the new firm, has been connected with the old house for eleven years, and for the past five years has sold the sample grain received by them.

The Empire Elevator, Mill and Warehouse Company has been organized at Memphis, Tenn. R. Dudley Frayser is president; E. C. Buchanan, vice-president and general manager; G. C. Vairin, secretary; Fred. Fowler, treasurer, and T. W. Ragsdale, superintendent. The company is building a 200,000-bushel elevator, and a 600-barrel meal mill. The Crane Company, elevator builders of Minneapolis, Minn., have the contract for building the elevator.

The Northwest Transportation Company has contracted with the Botsford Elevator Company of Port Huron, Mich., to store half a million bushels of Manitoba wheat this fall in bond, pending shipment to Canada during the winter for milling purposes. Delays have been occasioned in previous seasons after the grain trade opened, by the vessels having to wait their turn at the Grand Trunk Elevator. This arrangement will insure dispatch in dispatching the steamers and enable them to keep to schedule time for the whole season.

The object of the Canadian Pacific Railway in getting up an excursion of grain dealers of Manitoba, was to give them an opportunity of investigating the road's facilities for handling bonded wheat at Duluth. The visitors were shown through the large elevator from top to bottom, and were thoroughly convinced that there was no danger of Manitoba wheat becoming mixed with the poorer grades from Central Dakota and Minnesota. The combined elevator system of Duluth has a capacity of 21,000,000 bushels. The delegates who visited the elevators are certainly favorably impressed with the system of handling wheat.



Henry S. Hoag has succeeded J. C. Church in the grain trade at Clinton Junction, Wis.

J. G. Smart, who has been engaged in the grain business at Winona, Minn., has moved to Minneapolis.

"Jones of Binghamton," the man who pays the freight, has announced himself as a candidate for the office of governor of New York.

John Black, who has had experience in the grain trade in the old country and the United States, has commenced business in Winnipeg, Man., as grain broker.

Mr. J. J. Blackman of the firm J. J. Blackman & Co., grain commission merchants of New York City, has recently been made a happy grandpapa. His daughter has presented her husband, Mr. E. B. Houghton, with a bouncing boy.

George H. Barwise has been elected secretary of the Union Elevator Company of Minneapolis, Minn., to succeed William Ainsworth, who now has a more lucrative position as manager of the Minneapolis Elevator Company, operating elevators A1 and A2.

TO POULTRY RAISERS.

The Complete Poultry Manual is a neat little work which is well worth reading by those interested in poultry, or by boys or girls who want to turn an honest penny. The price is only 25 cents. Sent postpaid on receipt of price. Address

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Situation as foreman or manager in grain elevator. Have had several years' experience in the elevator business. Am not afraid of work. I understand the handling of machinery, bookkeeping, and all the details pertaining to the business. Best reference as to honesty, sobriety and good character. Fully competent of taking charge where a reliable man is wanted. Address

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Steam elevator at Villisca, Iowa; 15,000 bushels' capacity. Four ear corn dumps, sheller, cleaner, etc., all complete. Splendid corn crop. Price \$1,500. Immediate possession given. Address

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Of 10,000 bushels' capacity; Barnard & Leas Sheller and Cleaner; one French burr, 42-inch, with bolt; one feed grinder; Atlas Engine, 20-horse power, boiler, 25-horse power; stone engine room; office scales, barn and coal sheds all on my own ground. Best corn county in the state. Office on business street. Address

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Cribbed elevator of 20,000 bushels' capacity, in good repair, and two lots. Thirty-five-horse power boiler and 30-horse power engine, corn sheller, cleaner and Barnard & Leas Separator. Two wagon dumps, team and weighing out scales. In best grain section of Western Iowa. Receipts largely barley and corn, also some oats, flax and wheat. Station good for about 1,000 cars. Two other dealers and excellent competition. Price \$3,500; terms to suit. Address

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Steam elevator of 20,000 bushels' capacity. Western Shelter, corn burr, etc., complete. Also livery stable and dwelling house. Big corn crop. Cheap, if sold soon. Address

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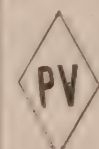
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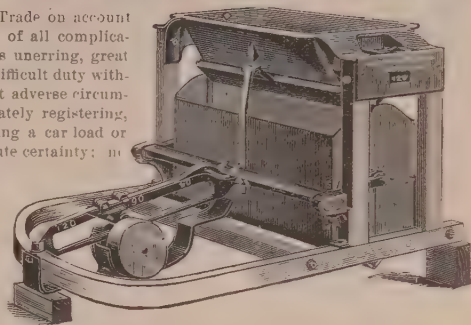
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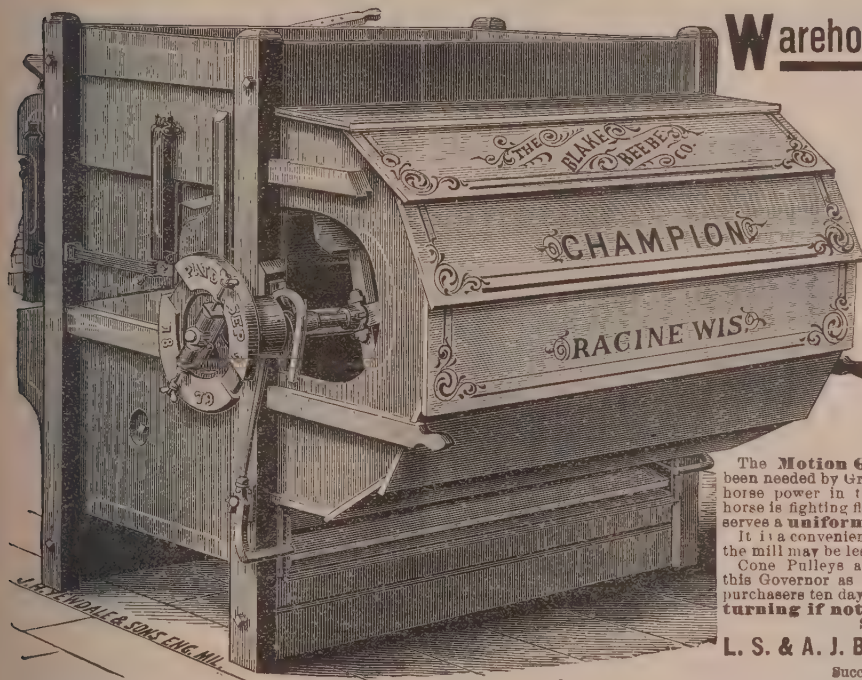
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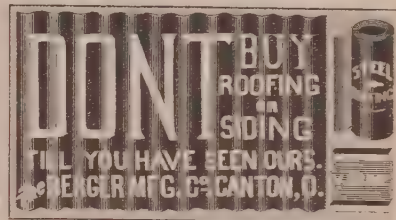
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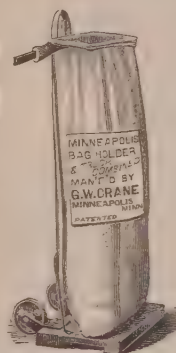
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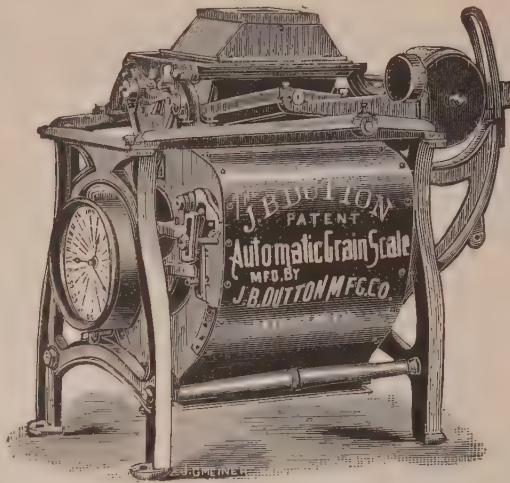
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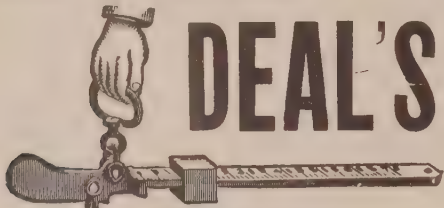
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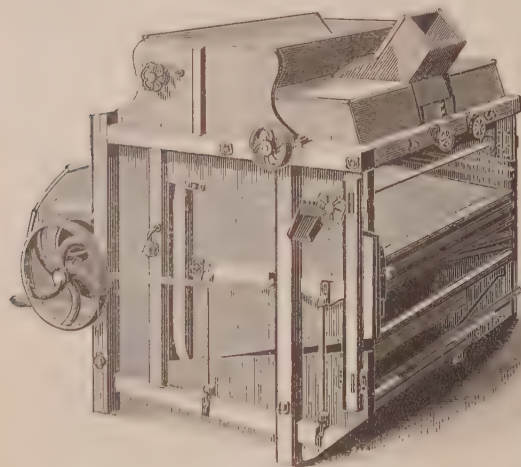
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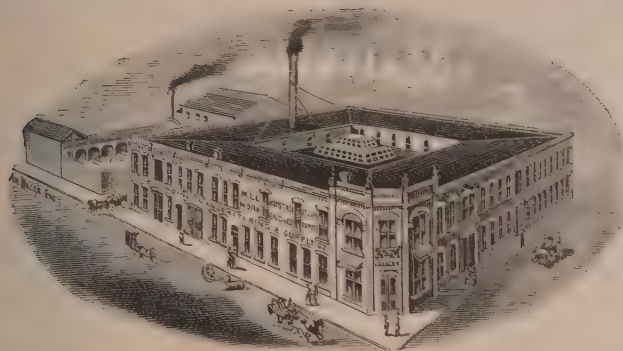
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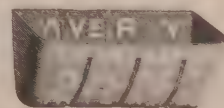
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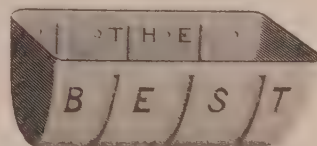
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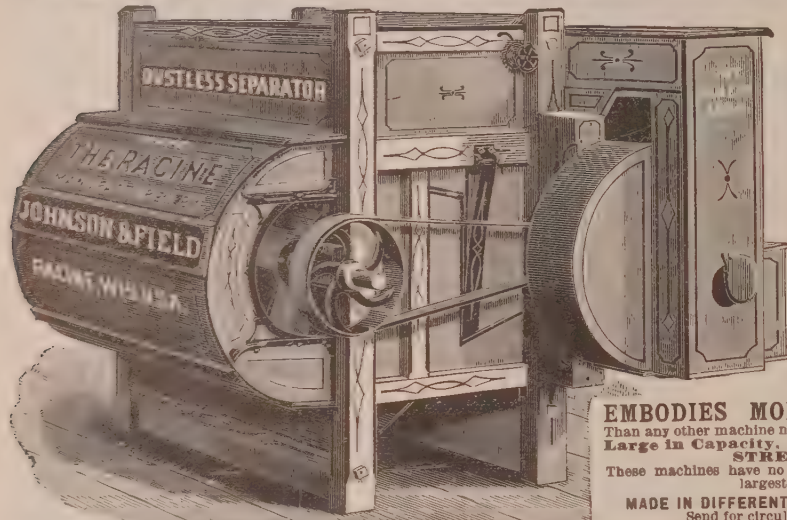
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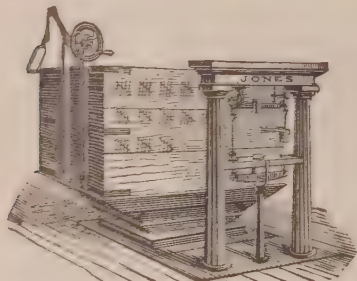


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Large in Capacity, Perfect in Separation, and with GREAT
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GRAIN, SEEDS, EAR CORN,
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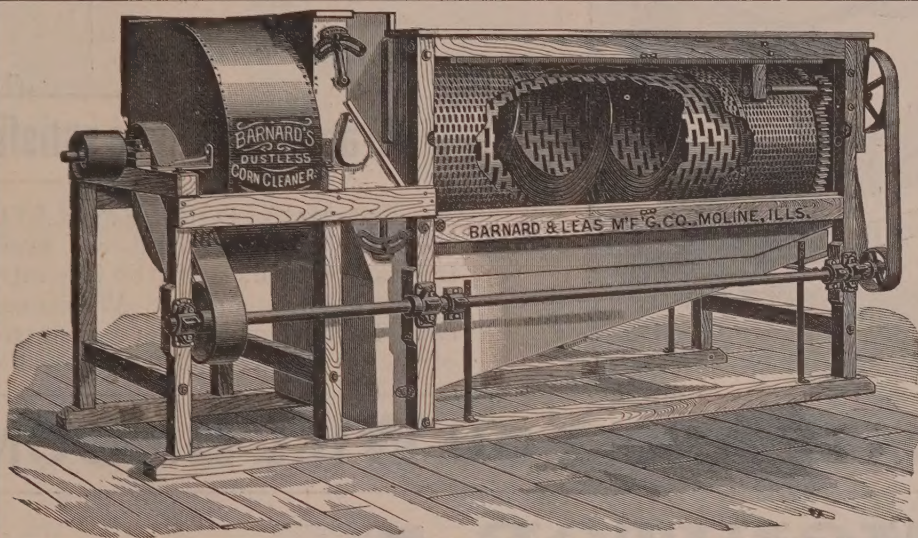
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Especially adapted
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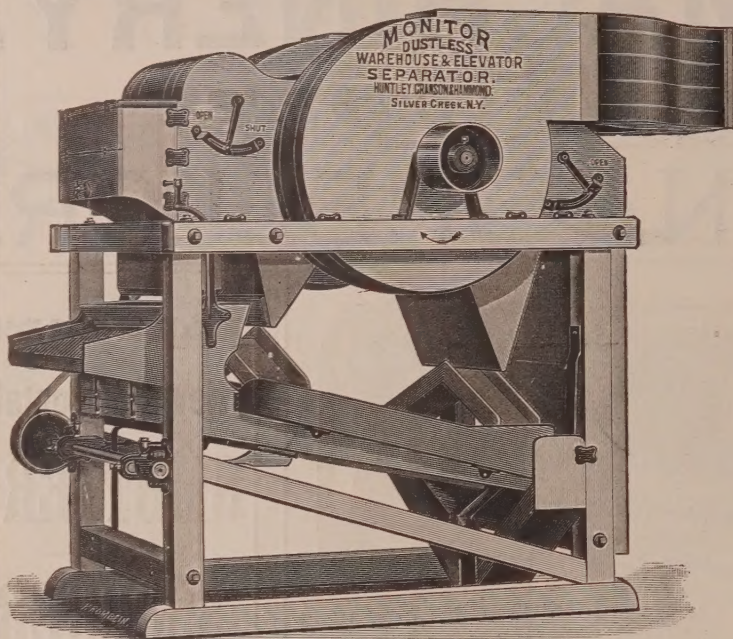
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Try it and you will be satisfied with no other.

Our MONITOR SEPARATOR is now in successful operation in a large number of prominent elevators, and the class of work done by it is attracting much attention and favorable comment. We claim to have the best machine for the purpose ever manufactured, and the testimony of the many users substantiate our claims in every detail.

INVESTIGATE AND YOU WILL BE CONVINCED.

THE MONITOR OAT CLIPPER

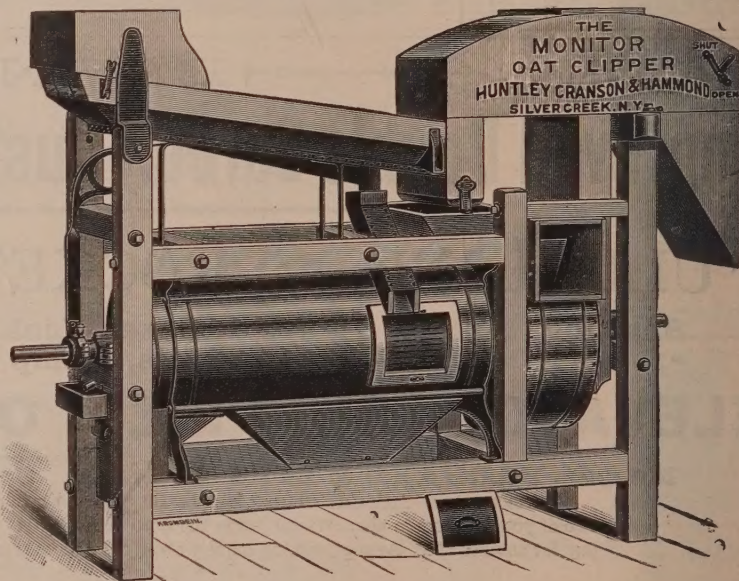
Will Separate, Clip and Polish Oats.

WORTHY OF A PLACE IN EVERY ELEVATOR.

THOROUGH WORK, LIGHT RUNNING, DUSTLESS.

The clipping of oats is now considered a necessity by all elevator men, and in offering our MONITOR CLIPPER to do this work, we know that we offer a machine superior to anything heretofore in use, and a machine that has received the approval of every one who has used it, or seen it in operation.

If you are interested in a machine of this kind you will be benefited by writing for full particulars.



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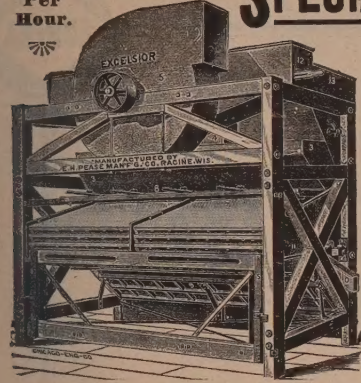
Write for Circular, Prices, Etc.

HUNTLEY, CRANSON & HAMMOND,
SILVER CREEK, N. Y., U. S. A.

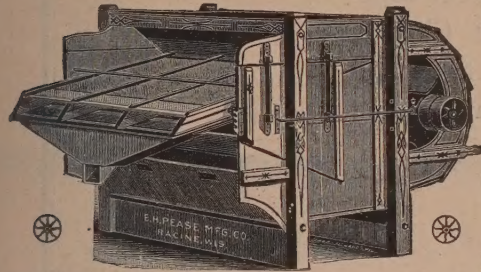
B. F. RYER, { 63-65 SOUTH CANAL ST., } Chicago, Ill. HENRY SIMON, { 20 Mount Street, MANCHESTER, ENG., }
Manager Western Branch. GENERAL AGENT FOR EUROPE.

Four Sizes from 300
to 2000 Bu. Capacity
Per
Hour.

SPECIAL GRAIN HANDLING MACHINERY



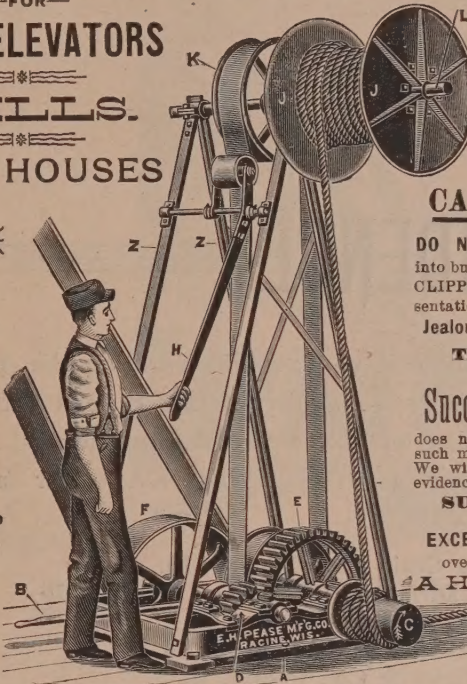
Excelsior Dustless Elevator Separator.



Several sizes, Styles and Capacities of End-Shake, and Side-Shake Warehouse Mills.

—FOR—
GRAIN ELEVATORS
MILLS.
MALT HOUSES

—AND—
BREWERS.



"HERCULES" POWER CAR PULLER.

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Jealous Competitors.

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Successful Clipper

does not need to resort to
such measures to gain trade.
We will give Undoubted
evidence of the

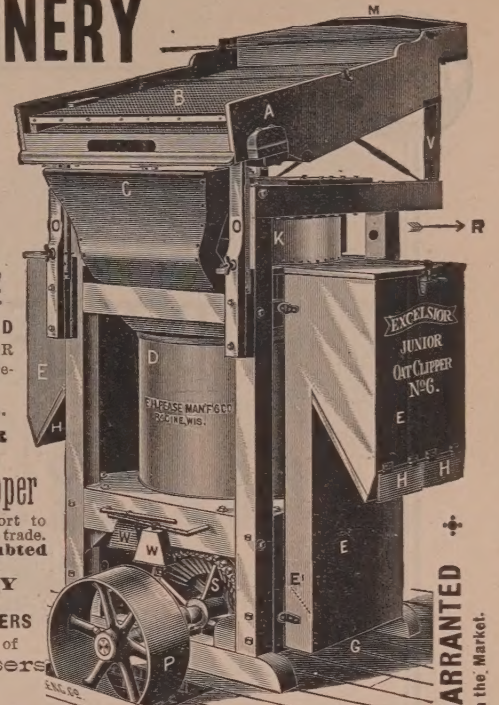
SUPERIORITY

OF THE

EXCELSIOR CLIPPERS

over the signatures of

A Host of Users.



"Excelsior Jr." Oat Clipper, Polisher and Separator.

PLENTY MORE TESTIMONIALS.

Letters similar to sample below, on hand for inspection of Buyers.

"Suppose you Write us for Particulars."

SENECA, ILL., May 8, 1890.

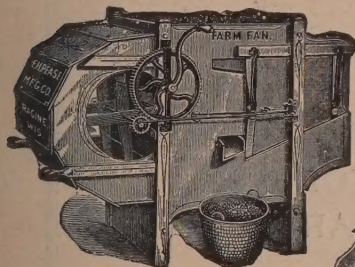
E. H. PEASE MFG. CO., Racine, Wis.

GENTLEMEN: In December, 1888, we bought one of your No. 8 "Excelsior" Combined Oat Clippers, Separators and Graders, and have clipped at least 250,000 bu. of oats with it without a cent of cost for repairs, and consider it one of the most valuable pieces of machinery in our elevator. Before buying, we examined other clippers in operation, but could find none we thought compared with the Excelsior in capacity or work. We have no trouble to raise the weight of oats anywhere from 3 to 10 lbs. per bu., and can change the grade while machine runs at full speed by moving the governing weights upon the regulating levers. A few days ago we went to see a clipper work and judging from the work it was doing it is a total failure as an oat clipper.

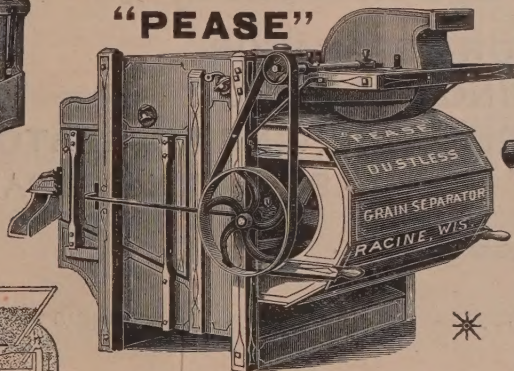
We would not exchange our Excelsior Clipper for a 10-acre lot of clippers. We have yet to see a machine that will come up to your No. 8 Excelsior in quality or capacity. Our machine has done better than you claimed for it and paid for itself long ago.

We tested our clipper a few days ago by clipping 3,500 bu. of oats by actual weight, with less than 1-2 lb. waste per bu. We also shipped two cars of oats from same bin to same commission merchant in Chicago, viz.: One car clipped and one car not clipped, we got 1-2 cents per bu. more for the clipped than the unclipped oats (1-2 cent per bu. covers cost of clipping and waste) ***** etc.

Yours truly,
HOGAN & NEILSON.



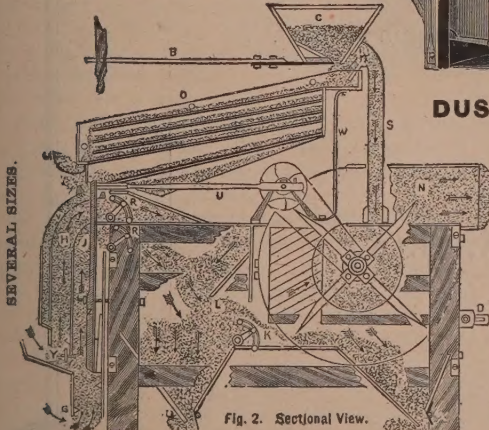
ALL SIZES AND STYLES OF
"Pease" Farm Fanning Mills.



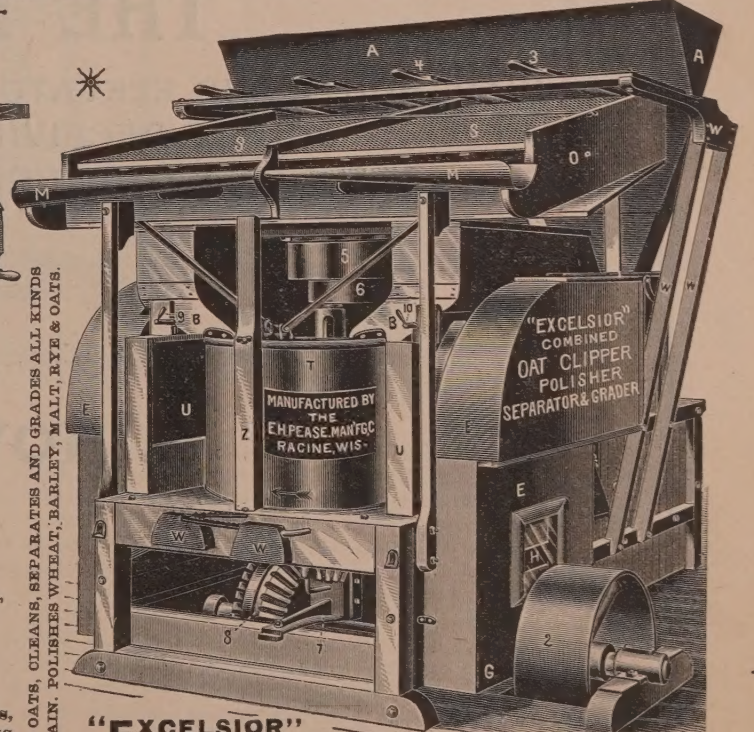
DUSTLESS SEPARATORS.

OUR SPECIALTIES

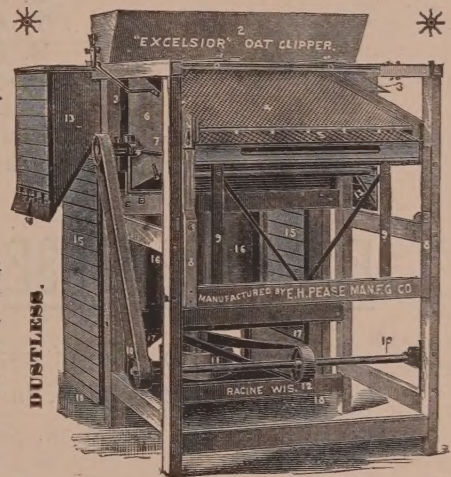
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Oat Clippers,
"Pease" Farm Fans,
"Pease" and "Wells"
Warehouse Fanning Mills,
"Pease" Dustless Separators,
EXCELSIOR
Receiving Separators,
Grain Graders, Cleaners
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Bag Trucks, Warehouse Trucks,
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Etc., Etc.



Excelsior Dustless Separator and Grader.



"EXCELSIOR"
COMBINED OAT CLIPPER AND
SEPARATOR, GRADER AND POLISHER.



"Excelsior" Oat Clipper and Separator.

With same Power, Conditions of Grain,
and other like Circumstances.

THESE MACHINES ARE FULLY WARRANTED
To Excel any Other Similar Machines of like sizes in the Market.

E. H. PEASE MFG. CO., RACINE, WIS., U. S. A.



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